FCC 12-152

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Notice of Proposed Rulemaking	)	
18 FCC Rcd 13187, 13188 ¶1 (2003)	)	ET Docket No. 03-137
	)	
And	)	
	)	
Service Rules for the Advanced Wireless Services	)	WT Docket No. 12-357
H Block---Implementing Section 6401 of the	)	
Middle Class Tax Relief and Job Creation Act of	)	
2012 Related to the 1915-1920 MHz and	)	
1995-2000 MHz Bands ¶53 footnote 95	)	

To: Office of the Secretary
Federal Communications Commission
Washington, DC 20554

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February , 2013

AFFIDAVIT OF JOHN WEIGEL

Republic of Ireland

I, ___John Weigel___, attest that my statements are true to the best of my knowledge.

Comment round for ET Docket No. 03-137 and WT Docket No. 12-357.

1. My name is _John Weigel_ .
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2. I am (describe your occupation). I am engaged as a writer, researcher and web design instructor.

3. and onward. Use as many concise (numbered) paragraphs as you need to describe your interest and involvement that support your desire to change the FCC RF safety guidelines.

Respectfully submitted by

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February 4, 2013

1. For numerous reasons, the work of Nikola Tesla has been suppressed due to both commercial and military reasons.
2. To this day scientists who question the safety of electromagnetic signals continues dating back to the work of Nobel Prize physicist, Paul Dirac in the 1930's (ref: http://openseti.org/Docs/HotsonPart1.pdf) who gave his name to the phenomenon known as the "Dirac Sea Vacuum tickling". Dirac's work centered on the concept of negative energy. According to Nuclear Scientist Tom Bearden, "consider the profound amount of uncontrolled "pulsations" (ticklings) ongoing in our modern environment! Spark plugs in all the auto and truck engines, cell phones spiking, all digital processing (computers etc.), sharp noises of all kinds, and on and on. The random local variation of such "Dirac Sea Vacuum tickling" occasionally produces very strange phenomena -- such as the sudden instant death and fall from the sky of flocks of even a thousand birds from time to time." The word "tickling" relates to pulses used by electromagnetic frequencies such as Wi-MAX and Tetra.
3. In Ireland we now have the phenomenon of Sudden Adult Death Syndrome (three per week) and have reports of birds falling from the sky just as Tom Bearden has predicted.
4. During WWII, the effects of radiation from radar on ship board communications officers was noted.
5. In the 1970's Prof. Olle Johansson of the Karolinska Institute, Stockholm, alerted the world to the potential danger to pregnant women by electromagnetic radiation from computer monitors. This was well before the appearance of cell phones.
6. While Prof. Johansson was the pioneer in the call for safety in favor of the Precautionary Principle, he has been joined by a chorus of scientists who note various effects including (among may others):

Dr. Magda Havas	**Canada**
Dr. Dariusz Leszcinski	**Finland**

Dr. Devra Davis	**United States**
Dr. Annie Sasco	**France**
Dr. Henry Lai	**United States**
Prof. Andrew Goldsworthy	**England**
Dr. George Carlo	**United States**
Dr. Lennart Hardell	**Sweden**
Dr. Livio Giuliani	**Italy**
Dr. Dimitris Panagopoulos	**Greece**

7.Further, I am including three articles I have written relating to the issue of microwave communications safety: 1) an article about Dr. Gerd Oberfeld. of the Salzburg, Austria Department of Health on how microwaves affect human cells; 2) an article about Dr. Annie Sasco and why microwaves were classified a "possible 2B carcinogen" as opposed to "probable carcinogens" by the World Health Organization's International Agency for Research in Cancer (IARC); and 3) a tribute to Mr. Victor Nixon which gives a scientific, social and political context to opposition to the deployment of microwave technology.

8. No. 1. The Oberfeld article:

World expert explains link between EMF and human disease, radiation in Ireland 1,000 times higher than recommendation

In Ireland, at present, all references - including the Department of the Environment and the Irish Cancer Society - are to ICNIRP guidelines which are 1,000 times higher and for a short duration only. Nowhere is there reference to the BioInitiative recommendation or to long term exposure.

In a mere six years half of us will become electromagnetically sensitive. A prediction by Salzburg's Dr. Gerd Oberfeld who addressed the Irish Doctors Environmental Association (IDEA) April 9, parallels the prediction by the Royal College of Physicians last year which predicted that half the Irish population will have "some form of cancer" by the year 2025.

Dr. Oberfeld spoke at the Eithne Naylor / Enda Dalton Memorial Lecture on the topic of "Electromagnetic Pollution and Our Environment" sponsored by IDEA. He has practiced environmental medicine with the Office of the Provincial Government of Salzburg Provincial Health Directorate, Department of Health, Hygiene and Environmental Medicine since 1992 and speaker for the Austrian Medical Association on health issues since 1994.

Oberfeld is credited with the policy implemented the city of Salzburg which has maintained the city as having the lowest electromagnetic radiation levels in Europe.

In 2006 Oberfeld drew attention when, along with Orjan Hallberg, of Hallberg Independent Research, Trångsund, Sweden, the two released research which predicted that half of humanity will suffer electromagnetic sensitivity by the year 2017 in the journal *Electromagnetic Biology and Medicine* published by Informa Healthcare. “Contrary to the views of mainstream medical authorities, Figure 1 shows that the group of electrosensitive people around the world, including Sweden, is not just a small fraction that deviates from the rest of the healthy population. Instead, it points at the possibility that electrosensitivity will be more widespread in the near future. The extrapolated trend indicates that 50 percent of the population can be expected to become electrosensitive by the year 2017.”

Even before Oberfeld could begin, several people had to leave the Carmelite Centre in Dublin’s Aungier Street, claiming discomfort from the toxic atmosphere generated by the

Like the famous photo of Nikola Tesla between two globes of power, Dr. Gerd Oberfeld, of the Department of Public Health in Salzburg, Austria is credited with overseeing public health in the city with the lowest ambient levels of electromagnetic radiation in Europe.

concentration of cell phones and electromagnetic frequencies just a short distance from the capital’s premier shopping street and St. Stephen’s Green.

Non-ionizing and Ionizing Radiation

Oberfeld organized his presentation along the classic division of the electromagnetic spectrum between non-ionizing and ionizing radiation. 'Non-ionising radiation occurs from frequencies that extend down into the natural biological frequencies with which man and all life evolved, such as the Schumann Resonance frequency (about 7,8 - 50 Hz) as well as frequencies used by the brain. These natural frequencies overlap with artificial ELF/ VHF frequencies including those from power mains (i.e., 50/0Hz) (Tetra at 16.67Hz) The non-ionizing spectrum ranges through radiation produced by visual display units, fluorescent lamps, radio and television with the upper limits including the second, third and fourth generation of digital communications up to any including radar infrared and visible light. Importantly he included the concept of harmonics, where devices may emit radiation at other frequencies than the main frequency. These lower harmonic frequencies may fall into the more sensitive and biologically important frequencies and disturb naturally occuring processes. For example, the new energy-saving bulbs (compact fluorescent bulbs) simultaneously emit a host of different freqencies other than their older tungsten counterparts that output at the nominal mains frequency (50 or 60 Hz).

Ionizing radiation has long been recognized as dangerous to human health. Oberfeld traced the process of how ultra-violet radiation, x-rays and gamma radiation produce free electrons at the high end of the electromagnetic spectrum. Ionizing radiation interacts with oxygen in human tissue which forms what Oberfeld called superoxide, an oxygen molecule with an additional free electron. This in turn, reacts with nitric oxide which is a signal molecule needed by the

body and forms peroxynitrate. “This is one of the most important molecules in our bodies because it’s the molecule that will interact with proteins, with lipids, with certain enzymes and it will cause the definitive damage in the cell,” explained Oberfeld.

“That is the way ionizing radiation is acting. The same is true for non-ionizing radiation where also free electrons are produced by the NADH oxydase,” he said.

PubMed, the U.S. National Library of Medicine of the National Institutes of Health, supports Oberfeld’s interpretation of the effects of NADH oxidase on smooth muscles leading to DNA damage with research presented by scientists from Taiwan.

Five Types of Electromagnetic Frequencies

There are five different types of EMF: Static electric fields (ie. produced by pulling a synthetic jumper over your head and the hair standing up), static magnetic fields (from nature which a compass measures), ELF magnetic fields, ELF electric fields and radio frequency and microwaves.

Sources of ELF magnetic fields include pylons, transformers, water pipes, earthing cables and wires as well as clock radios and other devices which have small transformers inside the case. Regarding pipes and wiring, Oberfeld said they raise magnetic field exposure up to a distance of 10 to 20 metres from the source and are frequently overlooked. “It is possible that there is a lot of current flowing,” he said.

Oberfeld explained that ELF is the acronym for Extremely Low Frequency magnetic fields

which are in the 3 Hz to 3 kHz at the lower end of the spectrum. The measurements are based on units called Tesla (after the Serbian pioneer inventor, Nikola Tesla, 1856 - 1943) or, especially in the U.S., Gauss (after the German mathematician Carl Friedrich Gauss, 1777 - 1855).

In terms of area covered by ELF fields, Obefeld cited the wide spread of magnetic fields from power line on pylons as opposed to buried cables. Pointing to a diagram of a typical field created by a power line on pylons, Oberfeld said, “You can see pylons or structures will emit magnetic fields if you are close down to the wire the field is higher and if you go away from it There’s a lot of discussion in Austria about 380 kV power lines and a lot of citizen groups urge to have earth cable used instead of the other ones,” he said, noting that the space required for the cabling is significantly less.

The doctor produced a chart comparing the difference between the three ways of power transmission: pylons / overhead cables are detectable at a distance of 80 metres; buried cables produce a spike in energy which is higher than pylons at close proximity to the line; but shielded cabling buried two metres underground is barely detectable. Pointing to the peaked underground cabling measurement, Oberfeld said, “If you use earth cable you can see that at about 20 metres you are in a safe level so its a very fine way to reduce magnetic fields.”

Domestic appliances such as televisions, refrigerators aquarium pumps, clock radios and electric cookers all produce magnetic fields with the aquarium being of particular interest because they use inductive processes which produce very strong fields. Oberfeld noted the recent development of energy-saving

domestic induction cookers. Unlike other forms of cooking, heat is generated directly in the pot or pan opposed to being generated in the stovetop by electrical coils or burning gas. An alternating electric current flows through the coil producing an oscillating magnetic field that creates an electric current in the pot heats the food. These cookers use a large current at low voltage. “Induction cookers work with kHz so the power is transferred to a magnetic field will make the heating of the pan. The interface is kilohertz, very bad, very strong magnetic fields. I wouldn’t recommend to use it,” he said.

Oberfeld is adamant that the home is no place for DECT phones or wi-fi. In a domestic situation Oberfeld recommends strict caution. “When it comes to other technologies like wi-fi or cordless phones,” he said, “one has to be aware that we have a transmitter which is a nexus point with respect to wi-fi but also we have the notebook or the computer where there’s another transmitter as well. If you use a notebook or pad or whatever you’re very close to the wi-fi antenna and you put it on your knees and the antenna is within the tablet for example you’re exposed to very, very high levels of microwave radiation and it’s the same frequency as is used in the microwave oven and the effects are directly to the cells. In order to prevent any effect and in order to apply the Precautionary Principle, my advice would be not to use wi-fi or DECT technology anyplace.”

The Evidence for Causing Disease

The increase in our reliance on electricity parallels a rapid rise in the incidence of young childhood leukaemia. Oberfeld cited a study by Stelairova and Fourcher in 2004 that uncovered an annual increase in childhood leukaemia on average of 1.4 percent a year from 1970 - 1999. This is just show you,” said Oberfeld, “ that this is not an incidence that is going down. It is an incidence that is steadily increasing.” The incidence of childhood

leukaemia reaches its peak around the age of two which is in line with other countries. According to a joint study between the National Cancer Registry and University College Cork, in Ireland the survival rate of cancers was high but the incidence of leukaemia is significantly higher. Researchers concluded, “Observed 5-year survival in Ireland (79% overall) was slightly higher than European and US averages, and was significantly higher for acute non-lymphocytic leukaemia (67%) and (compared with the USA) significantly lower for Hodgkin lymphoma (83%).”

Oberfeld’s remarks build on the 1996 observation by William Reville, a senior lecturer in Biochemistry and Director of the Central Electron Microscopy Unit, University College Cork, that “there is evidence of a weak association between increased exposure and an increased risk of leukaemia in children.” However, the title of Reville’s work “Radiation from Electric Power Is Not a Significant Cause of Cancer” published in *The Irish Times* could have sidetracked further Irish research.

Oberfeld cited a study by Milham that there is a “switch-on effect” of leukaemia following electrification. An increase of ten percent in electrification results in an increase of leukaemia by 24 percent. Underscoring the Milham results, Oberfeld also cited a German study using a moving cut point of exposure which showed

that childhood leukaemia starts to increase at 0.1 μT in a ratio which is associated with 24-hour exposure to magnetic fields.
Finally in 2001, the International Agency for Research on Cancer, part of the World Health Organization based in Lyon recognized that extremely low frequency magnetic fields are possible carcinogenic to humans in relation to childhood leukaemias. It marked a distinct change in perception about the ability of low frequency electromagnetic radiation from solely childhood leukaemia to the whole area of being classified as being a full-blown carcinogen.
With funding from the EU, the IARC conducted a large-scale investigation into the effects of radio frequencies used in the cell phone industry called the Interphone Study. The overall result of the study released last year remains contentious because, while admitting the possibility of increased incidence of cancers, researchers could find no increase in the risk of gliomas or meningiomas (brain tumours). The study does, however, admit the possibility that the duration of exposure can play an important part in the development of tumours. "Interphone did not look for ELF effects but RF effects from mobile phones," said Oberfeld, "however I would say that most researchers are not aware that mobiles emit magnetic fields in the Hz, kHz and MHz Range."

Standards: Risky Business or Business Risk

"When it comes to standards and recommendations, you might be aware of the recommendation of ICNIRP which is the International Commission on Non-ionizing Radiation Protection which is based in Munich," said Oberfeld, "which is taken by the WHO and the European Union which is 100 μT. This guideline value is okay if you add, that it doesn't cover long term effects. There are some countries, that have for power lines, in order to reduce the exposure and in order to reduce the risk, lower limit values. For example Italy 3 μT and Switzerland 1 μT. In Austria new power lines that need an environmental impact assessment have to apply to 1 μT as well. The BioInitiative working group recommended in 2007 0. 1 μT and this is for long-term effects."
"I think that even in 1998 the ICNIRP guidelines were out of date. I think they were highly biased in favour of the thermal effects and not the non-thermal effect," said Oberfeld.
The *BioInitiative Report* (www.bioinitiative.org) of 2007 states "While new ELF limits are being developed and implemented, a reasonable approach would be a 1 mG planning limit for habitable space adjacent to all new or upgraded power lines and a 2 mG limit for all other construction. It is also recommended for that a 1 mG limit be established for existing habitable space for children and/or women who are pregnant."
In Ireland, at present, all references - including the Department of the Environment and the Irish Cancer Society - are to the ICNIRP guidelines which are 1,000 times higher and for a short duration only. Nowhere is there reference to the BioInitiative recommendation or to long term exposure.
The bottom line in the on-going confusion over standards is that Swiss Re, the world's largest and most diversified reinsurers, operating in more than 20 countries, and with a presence on all continents, refuses to insure the industry.

Sleeping on a barbeque?

Regarding alternating electric fields which are measured in volts per metre (V/m), the frequency range is zero to 3 kHz. Observing that there are very few epidemiological studies on the relationship of electrical fields to the incidence of cancer, Oberfeld referred to a 1996 study by Welsh Biologist Roger Coghill et al. which measured the electric fields of the bed places of children suffering leukaemia. “The referent level is below 5 volts per metre measured in the bed. This ratio is 1 of course and then the exposure between 5 and 9 that ratio increased and higher than 10 Volts up to 19 Volts per metre, the ratio was three which was a three-fold increase of risk associated with those electric fields to see leukaemia under the age of 15.

“When we have external electric fields,” Oberfeld continued, “it will lead to body currents and this is called influence. I stated there are very few epidemiological studies but there is very good experience in the field of building-biology and environmental medicine - a lot of case studies especially in relationship with sleep, vitality and concentration - so if there is some mitigation done in the sleeping room or the office it will get better usually. There are some guideline values: the TCO which is quite common now for video display units. You can find it on the monitors. They will have to stick to below 10 Volts per metres at a distance of 30 centimetres.... The building biology standard in Germany has three values (0.3 V/m, 1.5 V/m and 10 V/m) so we should try to be below 1 V/m to say it roughly.”

To lessen the effects of alternating electric fields, Oberfeld reommended:

• shielded cables • demand switches for bedrooms • screened distributors • shielded lamps • shielded plugs for PCs and monitors

Oberfeld introduced his remarks on Radiofrequency and Microwave Radiation with photographs of familiar sights - a radar tower at an airport, a communications mast near a
residential area, a DECT telephone and a desktop internet router - saying, “The sources get closer and closer and they grow and grow.”

To set the stage for his remarks about cell phone use, Oberfeld went back to a machine dating from to 1932 and its handbook called *Shortwave Therapy: The Medical Application of Shortwaves* by Erwin Schliephake (1894 - 1995) outlining the use of a transmitter with headphones plugged to an antenna in order to achieve a warming effect of the body part under therapy. The Schliephake machine used shortwaves in the lower MHz range. “There is no need to have the microwave oven frequency,” said Oberfeld, “to have a heating effect which is 2,400 MHz, the microwave oven, so it works with 10 MHz as well.’ The significance of Schliephake’s work is that as early as the 1930s symptoms occurred after long exposure to the transmitter including: strong fatigue, restlessness, nervousness, fear and pessimism, difficulty falling asleep, waking with a start, strong fatigue or “waking up feeling washed out,” as Oberfeld put it.

Drawing from the EU’s 2004 REFLEX Project (*Risk Evaluation of Potential Environmental Hazards from Low Frequency Electromagnetic Field Exposure Using Sensitive in vitro Methods*), Oberfeld displayed images of cells which exhibited DNA damage. The image showed a near-identical appearance between a cell exposed to the equivalent of 1,600

chest x-rays and a cell exposed to a mobile phone with a specific absorption rate (SAR) of 1.3 W/kg for 24 hours - .7 W/kg below ICNIRP / WHO guidelines of 2 W/kg.

The Latest Hard Science

In the 2002 California EMF Program three epidemiologists came to a similar conclusion, admitting that ELF magnetic fields ranged from possible to definitive as a cause of leukaemia in both adults and children, adding the possibility of causing brain tumours in adults, miscarriage and Motorneurone Disease (MND). The group concluded, however, that there was inadequate evidence to support claims ELF magnetic fields were a factor in brain tumours in children, breast cancer, Alzheimer's Disease or sudden heart attacks. "The BioInitiative group made strong statements on those in 2007 so five years later they judged it in a similar way that there might be a possible association," said Oberfeld.

In 2006 Swedish Oncologist Lennart Hardell and his colleagues at University Hospital, Orebro published research showing a statistically significant 1.4-fold increase in risk for brain tumours on the same side of the head as the mobile phone was used. "The picture gets even clearer," said Oberfeld, "if you put into account the hours a mobile phone is used. Between 2,000 - 3,000 hours you have a fourfold increased risk for digital phones. Let's assume a person uses a mobile phone for one hour a day. In one year it will be 365 hours. In ten years we have 3,600 so that's a logical pattern.

"When it comes to age groups," he said, "the younger you are the more areas of the brain will be affected." All ages grouped together show an increase in brain tumours but for people who started to use cell phones before the age of 20, the rate of tumours is nearly three times greater than rate of all groups, indicating, according to Oberfeld, "There's a distinct increase with respect to age.

The mechanism for the development of disease from electromagnetism can be found in research by Joseph Friedman, Sarah Kraus, Yirmi Hauptman, Yoni Schiff and Rony Seger published in the Biochemical Journal 2007. Titled *Mechanism of short-term ERK activation by electromagnetic fields at mobile phone frequencies,* indicates that electromagnetic fields affects the behaviour of proteins in membranes. When hit by an EMF 875 MHz frequency (frequency of a typical GSM cell phone), the NADH Oxidase in the cell membrane and the mitochondria produce free electrons.

Free electrons will combine with Oxygen to form Super Oxide which combines with Nitric Oxide resulting in Peroxynitrite (NO3). "This is one of the most important molecules in our bodies because it's the molecule that will interact with proteins, with lipids, with certain enzymes and it will cause the definitive damage in the cell," explained Oberfeld.

"It is the iron-molecule within the NADH oxidase that is the probable interface between the EMF and the biology.It is about spin resonance," he said, "which is affected so that a very tiny amount of energy needed in order to have it formed in other way and it will produce free electrons. This effect is dependent on the field strength." Oberfeld explained that while the effect is dependent on time, ICNIRP recognizes an effect at 60 V/m yet scientists can see an effect at only 4

V/m. Citing the work of Martin L. Pall, PhD, Professor of Biochemistry and Basic Medical Sciences at Washington State University, Oberfeld gave credence to the NO / ONOO theory of how the same mechanism can account for people suffering the same condition present with different symptoms.

Scientific support for Oberfeld's explanation about extra ion and free radicals was produced last year by Malka N. Halgamuge at the University of Melbourne and Chathurika D. Abeyrathne at the University of Peradenya, Sri Lanka. In answer to concerns about possible adverse biological effects their paper, "Behavior of Charged Particles in a Biological Cell Exposed to AC-DC Electromagnetic Fields," nails it. They confirm that EMF affects ions and different signals and strengths have a resonant effect. Their work is a numerical model which tested the theories of Greek researcher Dimitris Panagopoulos and his team at the University of Athens. Their work addressed both electromagnetic and oscillating electric fields.

Further evidence comes from Örjan Hallberg, and brave, out-spoken Prof. Olle Johansson who note that EMF and our sleeping habits may contribute to an explosion in the rate of cancers. "A metal spring mattress is acting as a TV antenna and will definitely increase the risk for standing waves and body currents that can disturb the immune system. Consequently, countries where such beds are less frequently used should be expected to show lower melanoma rates. Figure 16 reports on a review of bed standard and cancer in different areas of the world. Again, the data seems in favor of this hypothesis."

Pall's paper, "Unexplained Illnesses:Disease Paradigm for Chronic Fatigue Syndrome, Multiple Chemical Sensitivity, Fibromyalgia, Posttraumatic Stress Disorder, Gulf War Syndrome and Others" explains in greater detail the process beginning with the production of Super Oxide mentioned by Oberfeld who adds electromagnetic fields as a co-factor in the Super Oxide - ROS - Peroxynitrite process as well as the onset of Alzheimer's disease in a vicious cycle. "There is evidence, for example, from power lines in Switzerland that those persons that live 50 mtrs both sides of the line, high voltage power lines, have an increased risk of Alzheimer which is dependent upon the length how long they have lived there," said Oberfeld.

Alzheimer's? - Don't Forget Other Effects

Other physical damage to the human organism attributable to ELF, radio and microwave exposure includes lipid peroxidation, protein damage, DNA strand breaks, inhibition of enzyme activity, disturbances in cell death, and disruption of the cell cycle. "Increasing evidence suggests," said Oberfeld, "the participation of mitochondria in neurodegenerative and neuromuscular diseases involving alteration in both nuclear DNA and mtDNA." Mitochondrial DNA (mtDNA) are called organelles. These are biological structures within certain cells that convert the chemical energy from food into a form that cells can use.

"I propose that its a biochemical mechanism and the mitochondria is especially overwhelmed with free electrons forming super oxide, forming peroxynitrite and this will also inhibit enzyme activity within the mitochondria, for example, with energy metabolism so the fatigue many people claim is from my point of view very well backed by this mechanism," said Oberfeld.

Giving hope to sufferers, Oberfeld added, “We know when exposure is reduced people get better. The system can cope with that... a certain amount.”
Long term exposure is another matter where people have no escape is another matter. Communication masts, DECT telephones and wi-fi present omni-present sources of microradiation form which there is no relief or escape. Citing a French study by Roger Santini and others, Oberfeld noted a decrease in a range of symptoms the farther people
lived from a sending mobile phone base station. The Santini group found a significant link between the distance to a mast and the incidence of headache: people living close to a phone mast had a headache much more often than people living more than 500 m away from it. Their report, however, was subject to criticism from the Dutch government because participants in the survey were aware of the purpose of the study and which could be reflected in a biased result.
Oberfeld noted the so-called “umbrella effect” saying, “There’s a very strong relationship with the distance to the mobile phone base station and the prevalence of certain symptoms like fatigue. As we can see, between 10 and 50 mtrs the prevalence is low and then there’s an increase (50 - 100 mtrs) and then there’s a decrease again. This might be due to the effect that mobile phone antennas will, usually in towns, will hit the next houses at those distances so if you are closer by the mobile phone mast it will radiate above your head so you are not that much affected.
A study by Oberfeld and Spanish colleagues in 2004 investigated the distribution of radiation from a large mast located on a mountain at La Ñora, Murcia, Spain, in the vicinity of two GSM 900/1800 MHz cellular phone base stations overlooking homes in the valley. A summary report on the research notes:
All models showed statistical significant associations between the measured electric field (~ 400 MHz - 3 Ghz) and 13 out of 16 health related symptoms. The strongest five association found are depressive tendency, fatigue, sleeping disorder, difficulty in concentration and cardiovascular problems. The symptoms associated are in line with the symptoms reported in the literature as “Microwave Syndrome”.
- ***Oberfeld, Navarro, Portoles, Maestu, Gomez-Perretta*** The Microwave Syndrome: Further Aspects of a Spanish Study
In support of his findings in Spain Oberfeld cited a study by Hans-Peter Hutter and his team at the Institute of Environmental Health at the Medical University of Vienna in Austria. Hutter reports “there was a significant relation of some symptoms to measured power density; this was highest for headaches.”
When it comes to standards, Oberfeld noted there is a huge difference between ICNIRP / WHO / EU and the standards recommended by the BioInitiative Report of 2007 in place in Oberfeld’s native Salzburg where the limit is 666 times lower than those recommended by government on the outside and nearly 2,000 lower inside buildings. (See chart.)
Oberfeld referred the audience to The Bioinitiative Report 2007 (www.bioinitiative.org) which argues for a biologically-based exposure standard for electromagnetic radiation. Reading from the report’s frontispiece, Oberfeld said, “Both ELF and RF exposures can be considered genotoxic (will damage DNA) under certain conditions of exposure, including levels that are lower than existing

safety limits. The clear consensus of the BioInitiative Working Group members is that the existing safety limits are inadequate for both ELF and RF."
So compelling is the evidence of damage to the human organism, a paper by Prof. Magda Havas resulted in the City of San Francisco's decision to ban a proposed city-wide wi-fi network in direct confrontation with the wishes of powerful industries based in nearby
Silicon Valley. The backlash was swift with the industry threatening to pull it's annual convention in the city that is recognized as the birthplace of the personal computer.

Good News - Bad News. Are We Using the Ionisphere to Cook Ourselves?

Until countries are brought into agreement in terms of exposure, Oberfeld recommends that residents can protect themselves by purchasing metallic screened window glass, carbon paint, tin (or other metals) roofs, avoidance of sources of radiation such as DECT phones, wi-fi, and using cabled computers rather than wireless internet connections.
After speaking for an hour, Oberfeld began to tire but his eyes radiate enthusiasm for his subject. For the camera he offered the following:
"What is important to note is, when you are exposed to wi-fi it may last several months, several years that you don't experience any symptoms and your assumption is therefore 'This technology does not harm me.' Point: this is true but only at the first level. At the second level during those years or months you've just started affecting your body and it's a cumulative effect at the biochemical level. At a certain amount of exposure our body can cope with so there will be no problem. After a certain amount of time and exposure it's the dose, exposure time is the dose, and the sensitivity of the individual which might be different from another one, symptoms appear.
"At this stage this person might be affected by other sources as well. For example, CFL bulbs, energy-saving bulbs, or the television set or the computer monitor or using a mobile phone, whatever. Then I say, 'Welcome to the club.' At this time the person awakens and says, 'Well yes, now I have a problem.' My answer is then, 'Okay, try to reduce the exposure.' That's the first thing and when your body gets free of those exposures it has the chance to come back to the balance again, to be healthy again. That's the good news."

More Bad News

CFL bulbs are also coming under fire - after they've been mandated by the EU and incandescent bulbs are no longer available - speaking to the *Daily Express* in the U.K.

General Public Electromagnetic Standards and Recommendations		
Standards and Guideline Values for Mobile Phone Base Stations	**V/m**	**μWcm2**
ICNIRP / WHO / EU (all sources)	**40 - 60**	**435 - 950**
Switzerland (per Site)	**4 - 6**	**4.2 - 9.5**
Italy	**6**	**9.5**
South Tyrol	**3**	**2.4**
Bioinitiative 2007	**0.6**	**0.1**
Public Health Department Salzburg 2002 Outdoors Indoors	 **0.06** **0.02**	 **0.001** **0.0001**

Andreas Kirchner of the Federation of German Engineers, said: “Electrical smog develops around these lamps. I, therefore, use them only very economically. They should not be used in unventilated areas and definitely not in the proximity of the head.”
Oberfeld noted the nature of the public’s perception of the problem. As a cumulative danger, eventually people will recognize that electromagnetic energy does affect their health.
“But the bad news is however,” said Oberfeld, “even if the amount of the exposure is low, if you are re-exposed, most of the people can recognize, ‘Oh yes, here is something that’s not good.’ That’s good. So the body is warning. Then the people have learned to avoid those exposures. I recommend that our society at a first step tries to be aware of these new technologies, to reduce personal and public exposure and on the second level we must try to find solutions. We need better technologies in order to serve the same needs.”
His words were small comfort to those forced to leave the lecture and unheard by passers-by using cell phones on the footpath on the other side of the centre’s Brandsma Room wall.

- John Weigel

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9. Article No. 2 Dr. Annie Sasco:

Tower of Power Dr. Annie Sasco Broadcasts Dangers of EMFs

By John Weigel

'Safeguarding the rights of others is the most noble and beautiful end of a human being.'

- Khalil Gibran

French, determined and vocal. Epidemiologist Dr. Annie Sasco gives genuine meaning to the term f*emme fatale*. In both the academic and political spheres, she has emerged as one of the few voices in the world holding firm against the gold rush of the microwave hi-tech revolution. Her mien can be irascible. One

more leading sentence or question on childhood cancer, clad in black with a red scarf and necklace, she can be fatal trapping her listener in her web, as lethal as a Black Widow spider, as brave as Joan of Arc.

Notches on her medical / scientific belt include serving as co-founder and vice-president of the European Society of Environmental Health and membership of the Ethics and Philosophy group of the International Society of Environmental Epidemiology.

Epidemiology, the study of epidemics, has been a lifelong pursuit of Dr. Sasco and she was more than forthright in discussing what she sees as a pending man-made cancer epidemic resulting from microwave technology at the AGM of the Irish Doctors Environmental Association (IDEA) in Dublin.

After 22 years of working for INSERM, the French National Institute of Health and Medical Research (INSERM) established in 1964, Sasco's insight and experience are bullet proof. She is a doctor twice over, an MD as well as holding a doctorate in epidemiology. INSERM is the only French public research body entirely dedicated to human health with a staff of 13 000, and 318 research units (laboratories with one or more teams coordinated by a unit director, located on a site hospital, university or other institution to fight against cancer). Thirty-seven of these units are dedicated to cancer research with a budget of approximately €70 million. INSERM is a client of the World Health Organization.

There is irony and logic in the fact that INSERM also has a research unit in the Curie Institute which was established in 1911 as the Radium Institute by Mme. Marie Skłodowska-Curie, the Polish-born physicist and chemist famous for her pioneering research on radioactivity. Curie died in 1934 of aplastic anemia brought on by years of exposure to radiation. One hundred years later, Sasco is warning the world about the dangers of non-ionizing radiation, in much the same way Curie touted the benefits of her research into the beneficial effects of the ionizing radiation that eventually led to her death.

Aside from the fact that the human eye can not see radiation - except perhaps the feint glow Curie reported as she carried vials of the stuff in the pockets of her skirts, the ordinary man in the the street is only vaguely aware that it is somehow dangerous. And even that vagueness is only based on the images of mushroom clouds dating back to WWII. Energy emitted from a source is generally referred to as ionizing radiation. Examples include heat or light from the sun, microwaves from an oven, X rays from an X-ray tube, and gamma rays from radioactive elements. This type of radiation produces enough energy to separate electrons from their orbit at a atomic level.

Farther down the spectrum are energy frequencies which supposedly do not affect electrons. These frequencies are called non-ionizing radiation and are what

the fuss is all about when scientists discuss microwaves, mobile phones, cell towers and other forms of electromagnetic communications signals.

The IDEA meeting was opened by Juliette Duff, Chairperson of IDEA, who addressed the issue of global warming, reiterating the concerns of former U.S. President Al Gore in his film, *An Inconvenient Truth* for which he won a Nobel Prize. “In the past our development program and, in fact, most of us, have been able to go through our daily routines believing that we are isolated little bits doing our own things, trying to survive in a finite planet and its a bit of a struggle.The new paradigm is showing us that actually much more than being based on material and material luck, that we’re much more based on energy and we in fact, have to unite and work together and that’s the only way for the future.

“We’ve got to stop waging war on our planet and on our other species and on each other as well if we want to get through this because there’s not going to be winners or losers. There‘s going to be everybody winning or everybody losing at this point,” she said.

Duff introduced a video of Professor Hugh Montgomery’s address to the group. Montgomery is director of the UCL Institute for Human Health and Performance at University College London. His presentation was made through a DVD to avoid air travel and demonstrate the savings to be made by thinking smart and reducing the so-called carbon footprint.

A veteran worker in the field of cancer research, most notably in Africa, Sasco, an MD from Bordeaux with the equivalent of a PhD from Harvard with 22 years experience at International Agency for Research in Cancer, including nine as Unit Chief and two as acting director of a World Health Organization (WHO) programme, challenged the world’s establishment with a broadside address to the WHO which echoed the concerns of Gore, Duff and Montgomery from the perspective of an expert in human illness and in particular, the rapid spread of first world illnesses in the third world where she has witnessed first hand the rapid rise of cancer, particularly in children during which she proposed an “Alliance of prevention and precaution for cancer control.”

“What I am going to discuss today,” she said, “is, if we really want to do something against cancer to maybe combine prevention and precaution so I will

discuss the issue of the Precautionary Principle mainly with regard to EMF electromagnetic fields as well as extremely low frequency fields (ELF)... Unfortunately since I have been doing epidemiology I have seen cancer increasing in the world," she said. "Nowadays, you can ask anyone on the streets and they say cancer is increasing. The International Agency for Research in Cancer (IARC) which is the World Health Organization cancer agency where I spent 23 years of my life is estimating that each year we have in the world 12.68 million new cancer cases and about 7.67 million deaths. So it's really a huge burden of disease."

'In a 20 year period there has been a 20 percent increase in childhood cancer and that is something that is very worrisome.'

- Dr. Annie Sasco

Other trends in cancer include the fact that age-standardized rates are increasing in most countries and particularly in the Third World, childhood cancer rates are increasing at a rate of one percent a year for the past 25 years. She noted that although survival rates have improved, the overall statistics indicate a true and real increase after taking into account a population increase and an aging population better diagnosis, breast and prostate screening. This increase is most obvious in children and noting an earlier remark about the international context, she noted, "The situation right now is completely dramatic in a continent like Africa where I do try to do something, but no one is interested about cancer in Africa whereas it is increasing very fast," she said. "Among the cancers which have been increasing, we can find childhood cancer and, of course, childhood cancer I think is a good example because kids nowadays are no older than they were 20 years ago so there must be something really real going on and it a very regular increase about between one and two percent depending on the countries per year which means that over a 20 year period there has been a 20 percent in childhood cancer and that is something that is very worrisome.... "

The issue of childhood cancer has no effect on population size because people are living longer against the fewer number of children being born per woman and children with cancer are no older than they have been. In children there is no evidence for earlier diagnosis[1] and no current screening program, all of which lead to a true increase in the numbers of children suffering the ravages of cancer and although more are surviving, they suffer longterm side effects and other consequences.

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[1] The Children with Cancer charity in London notes that figures published by the Office of National Statistics, show a 50 per cent increase in frontal and temporal lobe tumours between 1999 and 2009.
http://www.dailymail.co.uk/news/article-2134382/Risks-biggest-technological-experiment-history-species-Calls-research-links-using-mobile-phones-brain-cancer.html#ixzz1u8S5kAP6

Although she admits a claim that there is better diagnosis of childhood cancer, “mostly because of better imaging techniques”, Dr. Sasco’s appearance at the Children with Cancer conference on April 25 in London resulted in the remark, “Although a few days ago in London, some people told me that the reason for the increase in cancer is better diagnosis.” She remains skeptical.

Sasco explained that there are four causes for the increase in cancer in childhood: genetics, epigenetics (foetal cell programming and DNA interactions), parental life-style and the environment. It is here that the issue of childhood cancer becomes murky and experts become contentious. At the London conference Professor Dariusz Leszczynski, of the Radiation and Nuclear Safety Authority in Finland, said, “Thus far the WHO has ruled that there is insufficient evidence to advise on specific ways in which radiation could affect brain activity and induce cancerous growths.” His comments contradict the assertion in Dublin last year by fellow epidemiologist Dr. Gerd Oberfeld, of the Salzburg Department of Health, that microwaves dislodge electrons which become free radicals that cause cancer. “The big question nowadays isn’t really trying to provide answers on how much cancer we see today,” said Sasco, “(It) is in really trying to provide answers on how much of the cancer we see today is due to the presence in the air we breath, in the water we drink, in the food we eat, in the objects we are using on a daily basis are carcinogens be they chemical carcinogens, pesticide residue, contaminants or constituents of plastics, all kinds of chemical products, as well as the topic of interest - the biggest topic of interest to some of you - physical agents, ie. ionizing or non-ionizing radiation.”

Just how much childhood cancer is due to environmental factors is unknown because, as Sasco points out, no one has produced any estimates and those that have attempted to quantify environmental contributors are all over the place, from .07 percent to one hundred percent. The answers, Sasco claims, depends on three factors: how the word “environment” is defined; the particular type of cancer and the physical location when the investigation is conducted; and the individual responding to researchers’ questions.

All of this must be weighed against the presence of identified carcinogens, whether they are chemical, physical agents or biological in nature and where they are present: the general environment, at work or school or in the home. Thus the epidemiological process is laboured with multiple factors which are further complicated when balancing particular compounds against their metabolites[2] in the human body. “Sometimes it is not the compounds, it is the metabolites,” she said. Then there is the issue of dosage and cumulative exposure. Sometimes all of this is modified by the person you are, whether you are a woman or a man you are going to be affected differently and the time, of course, at which the exposure will occur.... the main one is foetal life,” she added.

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[2] Metabolites are part of the chemical process of life, directly involved in normal growth, development, and reproduction

Epidemiology, then, becomes the art of medicine as opposed to the science of medicine.
It is an argument as old as attempts to cure illness. Sasco is following in the footsteps of the famous French doctor, Armand Trousseau,[3] who said in his *Lectures on Clinical Medicine*, "Every science touches art at some points every art has its scientific side; the worst man of science is he who is never an artist, and the worst artist is he who is never a man of science. In early times, medicine was an art, which took its place at the side of poetry and painting; today they try to make a science of it, placing it beside mathematics, astronomy, and physics."[4]

The issue of the art or medicine is important in the context that it involves the judgement of individual fallible human beings - no matter how intelligent. Thus in practical terms, epidemiology involves balancing information on all recognized (or suspected) carcinogens added to exposure levels as well as all of the questions that people are asking. The process then becomes unwieldy and open to exploitation as conflicting opinions take sides. This heady mix of intellect, judgement, innumerable factors and vested interests resulting in confusion in the general population because the experts can not or will not agree.

In the cold analytical world of medical / scientific theory, the ordinary individual would be lost or bored. But Sasco leads her listeners to where she wants to take them. The symbolic Black Widow spider by nature is able to weave her web and wait. Annie Sasco's web is being woven as she completes her introductory remarks at the door of the International Agency for Research in Cancer its report on the causes of cancer.

"In France in the year 2000", she said, "non-hereditary risk factors were identified for only around 50 percent of cancers in men and around 26 percent in women. Hence, a specific 'cause' cannot be identified for a majority of cancers. In fact, 85 percent of cancers in non-smokers could not be explained by the factors considered in the analysis." Here she is noting what is not reported and how facts are presented.

"I think most probably a large part of this 85 percent could be linked to the environment," she claimed.

The first lethal bite is delivered with a simple question. "Doesn't it make sense," she reasoned, "to think a part of the 85 percent could be explained by the

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[3] As an aside, Trousseau recorded what has become known as the Trousseau sign of malignancy in the late 1860's. He applied his discovery to himself only to learn he had gastric cancer and died shortly afterward.

[4] [Armand Trousseau, *Lectures on Clinical Medicine (vol 2)*, The New Sydenham Society, 1869. Submitted to BMJ by A L Wyman, retired physician, London]

environmental factors they choose to ignore?" The web has been a success with her critics have neutralized and her listeners engaged.

With the witnesses engaged, much like researchers around the word who agree with her or not, the hook has been swallowed and Sasco closes in for her next strike: funding. In times past epidemiological research took the form of questionnaires. Going forward, more expensive research in the area of molecular epidemiology requires funding. Again she is touching on delicate toes. It is a fact of life in the academic community that researchers who produce evidence that a particular drug or inconvenient facts about microwaves are frozen shut through lack of funds and research projects where the outcome is anticipated are funded to the hilt.

Historically, universities were established in response to the need for answers. In the Middle Ages the church supported education as a means to underpin its theology. The Reformation saw the establishment of places of learning which supported different theological viewpoints while the American Revolution shook off the reins of vested interests with the development of public education. This issue of funding from private enterprise arose first with Rockefeller's establishment of the University of Chicago followed by Stanford University in California looking to fund its sports program. Today, a relatively new organization, the League of European Research Universities (LERU) is lining itself up as the conduit for European funding and acting as a broker to private industry through what is called its Technology Transfer Office. This arrangement is convenient for controlling the outcome of scientific research but not advantageous for independent researchers searching for truth. Who, for example is going to pay for the analysis of the "air outside, where does it go and how do we move little by little to cancer," Sasco asked. There is no public clamor for the answer but many commercial interests that want these issues firmly safe from public scrutiny. Ask Erin Brokavich.

Aside from psychotropic drugs, there is big money to be made from cancer. Without price regulation, Big Pharma can charge what it likes. Just the day prior to Sasco's talk, the government announced it would pay €85,000 for the 'wonder drug' Ipilimumab for use in Ireland where there is an average of 30,000 new cases of cancer a year, an increase of 50 per cent since the mid-1990s, with a projected growth of more than 100 per cent in the number of cancer cases over the coming decade. It demonstrates that Sasco's mere presence in Ireland is a threat to commercial interests and begs the question of why not invest in wellness and prevention rather than treatment. The New York-based manufacturer of the drug, Bristol Myers Squibb, has a manufacturing plant in Swords, Co. Dublin.

According to Sasco, conceptually there are three major strands to cancer prevention: genetic intervention, pharmacoprevention and the only proven protection from cancer - avoidance of risk factors. The genetic response to

cancer prevention carries with it the possibility of destruction of the foetus bearing the suspect gene. Before birth, genetic sequencing can be “somewhat scarey”. Intervention in cancer prevention using pharmaceuticals is not happening. A drug which gives some hope for secondary breast cancer is Tamoxifen[5] on which Sasco focussed for some time. “Of course there is no vaccine against cancer we hear it every day but yet not exists - the only thing which exists are some vaccines against viruses linked to cancer and the best is the hepatitus B virus which leads to liver cancer.” Citing studies for over-the-counter products such as vitamins and nutritional supplements in cancer intervention, Sasco observed, “In general, there is little if any demonstrated efficacy for the vast majority of vitamins. The best results have been found for Vitamin D. In any event, the best source of vitamins, minerals and oligo elements is a healthy and balanced diet.” No surprises there and further, there are no surprises at all because the only true primary prevention (“And the only one that works”) is the avoidance of risk factors.

Sasco displayed a photograph of eight young girls at the bar during ballet practice to illustrate the point that one in eight girls will go on to develop breast cancer. “You have to be worried about one of those girls,” she said. A second photo illustrated how women should be “more concerned about being a 1.7[6] than a 36B”.

“”36B is a bra size but 1.7 is a risk score telling you how much at risk you are. If your mother had breast cancer... and if you are there then you can take drugs.” she said.

To assess how science has arrived at the juncture of the use of pharmacology versus prevention, Sasco cites the work of Sir Richard Peto and Sir Richard Doll. Peto, is Professor of Medical Statistics and Epidemiology at the University of Oxford who said in 1981[7], “The possibility of discovering anti-cancer drugs to be prescribed rather than carcinogenic substances to be proscribed is tempting. More people are ready to accept prescriptions rather than restrictions.

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[5] Tamoxifen was proposed in the 1990’s for the prevention of breast cancer but by 1996 it subsequently recognized as a carcinogen by the IARC in 1996. See *Tamoxifen: Harvard Public Health Review: A Prescription for Prevention: Tamoxifen.* http://www.hsph.harvard.edu/review/summer_tamoxifen.shtml

[6] Approximately 6% of women of European descent will receive a score of 1.65 or above, meaning they have at least a 65% greater than average lifetime risk of breast cancer. This corresponds to a lifetime risk of at least 20%, the threshold at which the American Cancer Society (ACS) guidelines recommend annual breast MRIs in addition to mammograms.

[7] Sir Richard Peto, FRS. is Professor of Medical Statistics and Epidemiology at the University of Oxford and a world expert in the relationship of mortality to smoking. Sir Richard Doll, a collaborator, was a consultant to Monsanto.

"The way I translate it is it is easier to pop pills rather than changing one's life-style and changing the environment even more and the pharmaceutical industry will just be too happy about that. There are only 1.4 million women getting breast cancer per year in the world. And, of course," Sasco, the black widow, takes another swipe at industry saying cynically, "the pharmaceutical industry will be only too happy ... At risk, all of us."

Sasco's argument is woven with numerous issues intersecting in a spider's web of engagement with thoughts connected in a stream of consciousness. Without taking a breath she links the lack of research funding, feminism, why things do not get done and if it is done, how answers are frequently skewed. "The only thing we are left with is get rid of the risk factor, get rid of the causes of cancer if you can. And for doing this, the first thing you need is to identify the risk factors and so we need to do more studies and then we need to act at the level of the individual or at the collective level," she said. "But it's not an easy question as I said it before. Why it's not any easy question? Because if you look at a funding agency. I don't know about Ireland, but in France, the U.S.A., I guess also in Ireland most of the money in medical research goes into the real thing... if you want maybe will lead one day to an Irish man, less likely woman, not that they are more or less intelligent but just they don't make it there, to get a Nobel Prize. If you study genetics you can get large amounts of money. If you want to study prevention or environmental exposure it's much more difficult usually to get some money. If you don't have data then there is no need to do anything about it you really don't have to do anything about it so we can not really say that a lot of money is getting into the environment except that everybody is talking about it. I think it's not getting better. There is some money going there but usually they're always going to safe teams which, just by chance, happen to be teams who usually come back with reassuring results. But it's just by chance, of course, but we need to do more."

It is at this point that the issue of risk factors converges with the environmental issue of microwave radiation. A movement worldwide has emerged around the issue of wireless communications and particularly mobile phones. A year ago, IARC classified radiofrequency electromagnetic fields as possibly carcinogenic to humans (Group 2B), based on an increased risk for glioma, a malignant type of brain cancer, associated with wireless phone use[8]. A year later the decision remains contentious, including the run up to publication of the decision.

While IARC was collating information about cell phones, Sasco, along with others, was invited to participate in a conference before Canada's House of Commons Standing Committee on Health (HESA) due to her vast experience.

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[8] The WHO/International Agency for Research on Cancer (IARC). *IARC Classifies Radiofrequency Electromagnetic Fields as Possibly Carcinogenic to Humans.* Lyon, France, May 31, 2011. http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf

For all her dedication, expertise and care for cancer and HIV sufferers, on International Women's Day, her offices were taken from her by the administration at the University of Bordeaux. Her offense can not be pinpointed but she spoke out, outlining the dangers of low level electromagnetic radiation from cell phones, masts and wi-fi. Her crime was to offer words of support to those opposed to the proliferation of new technology without adequate regulations, warnings and safeguards.

In the run-up to IARC's final decision, Mona Nilsson, a swedish writer, learned that the proposed chairman of the IARC committee, Prof. Anders Ahlbom, had failed to reveal his interests in his brother's public relations firm in Brussels which represents the interests of the wireless industry. Ahlbom, a member of the panel which advised the Irish government's position, along with colleague Maria Feychting, have consistently downplayed any environmental dangers of radiation from microwave technology. Sasco became a near casualty of the controversy. Today she continues. A survivor whose reputation has been enhanced by the attempts to remover her from the international scene.

As evidence of her steely integrity, Sasco challenged the World Health Organization in an open letter, co-signed by more than 100 well known people in the medical world, last September to United Nations Secretary General Ban Ki-moon and the World Health Organization Director General Dr Margaret Chan.

"Among the risk factors to be considered," wrote Sasco, "the physico-chemical pollution of air, water, food, soil and objects of daily living is of major concern. This corresponds to the presence in our general, occupational and domestic living environment of carcinogens, teratogens, endocrine disruptors and other toxic agents, ranging from indoor and outdoor air pollution, poor quality drinking water, food supply contaminated by pesticide and medicinal drug residues to exposures at the workplace, in particular in countries with no occupational medicine, industrial hygiene or any other form of worker protection, and with frequent legal or illegal child labor. We are concerned about the effects of these chemical and physical (ionizing and non-ionizing radiations, such as EMF emitted by cell phones) agents in the population as a whole, but even more so among susceptible groups, such as women of reproductive age, children and disadvantaged individuals. The only effective way to protect the world population is to act at a global level, in particular through legislation at the national level and a framework convention at the international one."

It was a brave move. Although technically not her employer, both IARC and INSERM pay her wages in a sub-contracting arrangement from the World Health Organization. Not only did she survive the putsch against her at the University of Bordeaux, she rose above the challenge and proved her point. Perhaps the reason Joan of Arc was burned at the stake is because she preferred *l'épée* (the sword) to *le stylo* (the pen). Like Joan of Arc it was defiance on the world stage.

The objective of her challenge to the WHO is the same objective for appearing in Ireland the health of humanity. To achieve this she recommends helping individuals to adopt the most adequate health behaviours and through epidemiology to provide knowledge which can be used by decision makers - including governments AND multinationals for the protection of population - not forgetting the most vulnerable. A logical mind would assume that an organization called the World Health Organization would not require a reminder of what it should be about. Sasco's brief, like Joan of Arc, is idealistic in the extreme.

Pragmatically she refers to developments in the battle against tobacco. "We need to influence the politicians because they need to do something to protect their populations," she said. "For behavioural risk factors it took, I think, 60 years, but it achieved something and the main message we need to get across. For tobacco everyone has to be involved: medicine, population, health, agriculture... " She noted that if tobacco was substituted for GMOs, "Again it is the same thing. We need to work with agriculture. We need to work with the media So, in fact, everyone is an actor of health and the only way we will make any progress is if everyone fights against something."

Here, then, is the essential Annie Sasco. Medicine, politics, Big Pharma, feminism, the environment - all without drawing a breath. An intellectual force of nature. A black widow. Joan of Arc. A woman willing and able to take the battle to the front door of the offenders and worse, having the support of the people.

Sasco uses the Framework Convention for Tobacco Control as the model for dealing with other environmental actions. Adopted in May, 2003, it is the first international treaty for public health negotiated under the auspices of the WHO.The framework came into being in February 2005 and ratified by forty countries. Today, 172 different governments and organizations ascribe to the framework, representing ninety percent of the world's population. "If we could come up with framework conventions on toxic substances, on carcinogens, real ones, then it could help. It may not be enough but it goes in a good direction," she said. "... and work with people who are charismatic. I've been very much criticized for many reasons but..., including one by my boss because he said I'm working with clowns and the people were crazy. One of them was David Servan-Schreiber."

Servan-Schreiber, a French-born doctor, renowned psychiatrist and researcher in neurocognitive function, cofounder of *Médecins Sans Frontières* (Doctors Without Borders) took the phrase "physician, heal thyself" to heart. Upon learning he had a brain tumor, he turned his personal journey into books that changed how the disease is viewed and treated. His book, *Anticancer: A New Way of Life,*[9]

[9] Servan-Schreiber, David. *Anticancer: A New Way of Life.* Viking (2009). Hardback, 274 pages. ISBN 0670021644

published in 2008, sold 1 million copies. and advocates Vitamin D as an important boost to the body's immune system in the fight against cancer.

"Because he was Servan-Schreiber, which in France was a very big name, of course, he had access to all the media. He was able to publish his book in many different languages and I think we have to work with these people. Of course it's really frowned upon by the medical establishment. Why? Because he can get across the message what us, Sasco, I would never be able to get across. I think we need not be ashamed to work with the media and the people who have access to the media because it was more convincing to the women of the world - David Servan Schreiber himself was very good looking - than an old MD would be so why not?"

Halfway through, Sasco reaches her topic: Environmental factors and human health, focussing on electromagnetic radiation and exposures which can not be controlled at the individual level. This is the level of governmental policy. ""We could do the same type of reasoning for pesticides residue, for air pollution, for GMOs - a big question mark because everything has been done so that you would not have yet any answer or we could have had some for 20 years. No. No data. Therefore no, no nothing - for use of growth hormones in animal husbandry. I was for 12 years one of the European experts on the controversy opposing Europe to the U.S. and Canada on growth promoters in beef. Finally Europe won in the name of the Precautionary Principle. So we have to worry about these and again try to use the networks you can." she said.

Sasco glosses over the importance of the growth hormone issue. The so-called growth hormones were essentially antibiotics. She and her colleagues argued successfully that antibiotics should not be used routinely in livestock as growth promoters because they could prompt drug-resistant bacteria to evolve in animals and lead to anti-biotic resistance infections in human beings. A small omission. A big success. Not something to endear her to agri-business.

As with her message of engaging the media, Sasco also encouraged the use of networking to get the environmental message across, creating the gaps in the web to ensnare particular people willing to help. "I've had the chance," she said, "to go to Harvard. I've got three Harvard degrees. I am a member of the Harvard Club of France where there are very few people coming from public health but all these big businessmen, I think, it helps them to listen once in a while to these kinds of issues. Not that they act much but you never know. Maybe one day I will convince someone." To achieve this she displayed an invitation from the Harvard Club of France where she debated the topic "Cancer, Environment and Social Justice" alongside Servan-Schreiber, and authors Genevieve Barbier and Laurent Schwartz. Founded in 1922 with collaboration between Harvard College and the Massachusetts Institute of Technology (M.I.T.), the School of Public Health is unique in that in addition to medicine, its mission is laden with political and social themes aimed at improving the health of populations. Sasco was able

to attend after she challenged the president of France to keep his word about health in France, perhaps the best investment France has made since the establishment of the Curie Institute. Not once, but twice she was awarded two scholarships to the HSPH. Finding the experience liberating in comparison to the the educational process in France, she found further funding through a scholarship for French students from a bequest from an American WWII veteran who had served in France.

Turning to the main thrust of her visit to Ireland - electromagnetic fields (EMF) and extremely low-frequency electromagnetism (ELF) - Sasco lifted the veil on how the IARC determines exposure classifications. “I am going to explain to you the way the IARC works when they classify things., iarc.fr, if you go on their web site, iarc.fr, you can find the list of all carcinogens which have been identified so that’s a very useful source of information. How do they do these kinds of classifications? They look at the data available for compounds, for human studies, biology, clinical studies, experimental studies in mice, rats, whatever, and other studies and then they come up with a narration. So I think this programme which was initiated in 1969 by Lorenzo Tomatis[10] is a wonderful programme which has saved the lives of thousands of people in the world through the recognition, identification and publication of results on carcinogenicity. It just what is called a critical review of the literature and then an evaluation but it is a very, very important programme.”

The end result of the process of evaluating all available information is a published document called a Monograph. According to the IARC’s website[11], “The *IARC Monographs*[12] identify environmental factors that can increase the risk of human cancer. These include chemicals, complex mixtures, occupational exposures, physical agents, biological agents, and lifestyle factors. National health agencies can use this information as scientific support for their actions to prevent exposure to potential carcinogens. Interdisciplinary working groups of expert scientists review the published studies and evaluate the weight of the evidence that an agent can increase the risk of cancer... Since 1971, more than 900 agents have been evaluated, of which more than 400 have been identified as *carcinogenic*, *probably carcinogenic* or *possibly carcinogenic* to humans.”

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[10] Prof. Lorenzon Tomatis (1929-2007) served as Chief of the Unit of Chemical Carcinogenesis of the IARC. from 1982 to Dec. 1993 he served as the agency’s director. In 2005 he was recipient of the Ramazzini Award in Bologna, Italy. Sasco is a fellow of the Collegium Ramazzini, an independent, international academy founded in 1982 by Irving J. Selikoff, Cesare Maltoni and other eminent scientists. It is comprised of 180 internationally renowned experts in the fields of occupational and environmental health.

[11] http://monographs.iarc.fr/

[12] Support for the Monographs process was given by both the United States National Cancer Institute and the European Commission.

Agents for investigation for the Monographs are selected on the basis of two main criteria: that there exists 1) indications of human exposure; and 2) indications or suspicion of carcinogenicity. The term “agent” covers individual chemical products, groups of chemical products, physical agents (such as radiation) and biological agents (excepting viruses) or a mixture of agents. The next step is a summary of reported data on exposure data, and carcinogenicity for humans (including both epidemiological data and case reports and correlation studies) as well as experimental animal data. “Other data, it’s a mixed bag which has been increasing over the years,” explained Sasco, “from genotoxicity to expression of genes or the functional aspect of gene effects, effects of cell behaviour, effects of dose, timing, duration of exposure, so it’s a very large bag. And I must say this very large bag, it’s not so much been developed to help in identifying new causes, but has really been developed because people want to use all these things to say that mice do not behave like humans and even if some studies are positive in mice, in fact, there will not be any problem in humans so it has been mis-led in the way it was originally formed.”

There follows yet another three-pronged evaluation procedure which ticks boxes for sufficient, limited, inadequate or the presence of evidence which suggests the lack of carcinogenicity from epidemiological, animal data or a third, overall evaluation group which is usually a combination of human and animal data. It is this third group in which IARC placed EMFs and ELFs in May 2011. “And then they combine what they know from humans with what they know from animals and come with these four categories which are here: Group 1: carcinogenic to humans. Then we are absolutely sure that something is a carcinogen. It’s where you find benzene, asbestos, smoking, these kind of things. A number of viruses. Then Groups 2A or 2B where they are probably carcinogenic to humans or possibly carcinogenic to humans. There, what we are missing is to have sufficient evidence in humans. So there are some data from epidemiology but maybe not enough. But on the other hand they are either very good data in animals that makes it into 2A or less good also in animals and 2B.”

It is this area where the argument surfaces between epidemiology and hard science. Epidemiology, because it relies on the collection of data and consensus based on the expertise of researchers implies artistic insight. It uses human judgement as much as collected evidence to reach a conclusion. Thus the IARC classification system often flies in the face of scientists who present hard evidence of biological effects for or against compounds or agents and yet their work is not recognized as offering the defining answer to a query. Thus the process leaves researchers such as Prof. Olle Johansson, the Karolinska Institute, Stockholm; oncology Prof. Lennart Hardell, of the University Hospital in Orebo, Sweden, Dr. Dimitris Panagopoulos in Greece, and Dr. Magda Havas, Trent University, Peterborough, Ontario all apparently ignored.

This gap in recognition was noted by EMF/ELF writer-activist Paul Doyon who said, “In my opinion, arrogantly ignoring/disregarding/overlooking any

evidence while at the same time using Scientific Rhetoric as a smokescreen to obfuscate the issue is not only the worst and most dangerous form of ignorance, but it is also verging on a form of psychopathology. Perhaps, we can call it trickle-down psychopathology in this case, as it seems to have infected large portions of the population -- who seem to possess, in other words, what Marcuse called the 'Happy Consciousness.' 'I do not care what injustices are occurring in the world as long as my false electromagnetic needs are being satisfied.'"[13]

Sasco explained how ELFs/EMFs came to be classified in Group 2B. The foremost reason for a classification of carcinogenicity is humans requires sufficient in the first place[14] or "very strong data". In 1965, Austin Bradford Hill assembled nine criteria for assessing causality in epidemiological studies. (See list.)

"I will insist on the 2B - 2A classification because that's an issue that's exceedingly relevant for the EMF. The EMF and the ELF were classified in 2B, ie. 'possibly carcinogenic to humans.' When do you put things in that category is when there is when there is limited evidence of carcinogenicity in humans so there is something but it's not really good enough unless there is sufficient evidence in animals - so not too much data.

"When can you go to 2A 'Probably Carcinogenic'? Again, first limited evidence in humans and sufficient evidence in animals. So, in fact, that we didn't have for the ELF or for the EMF, but I want to draw your attention to the last sentence and that's taken word for word from the Preamble of the Monographs - I was there for many of these meetings so I know it by heart - 'Exceptionally, an agent, mixture or exposure circumstance may be classified in this category on the basis of limited evidence of carcinogenicity in humans.' In fact, without anything else. So my argument has been and I have to write the ELF and the EMF could have been 2A. And as I will show you, it would have made a difference." This is the finest of battle lines. As things stand there are two schools of thought. One school says communications radiation is harmless. They and their studies are frequently backed by industry funding. The other more theoretical side which is starved of research funding says that microwave-based communications systems are harmful. Until now, Sasco has couched her doubts about the safety of microwaves in an overall consideration of epidemiology which sees cancers of all types increasing due to any number of environmental influences. By admitting

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[13] http://prd34.blogspot.com/2011/12/why-were-dr-dimitris-panagopouloss.html

[14] The working group considers that a causal relationship has been established between exposure to the agent, mixture, or exposure circumstance and human cancer. That is, a positive relationship has been observed between exposure and cancer in studies in which chance, bias and confounding could be ruled out with reasonable confidence.

[15] Bradford Hill, Sir Austin. *The Environment and Disease:Association or Causation?* Proceedings of the Royal Society of Medicine, 58 (1965), 295-300. http://www.edwardtufte.com/tufte/hill

that cell phones could have been placed in the 2A 'Probably Carcinogenic' category she has finally crossed her own personal Rubicon.

"So what did we have for the ELF?," she asked, again reverting to the scientific evidence, "That's the issue of electricity, high power lines, very high power lines, these kind of things.This was evaluated by the IARC in 2001 and the first study which was done on that was by Wertheimer (and Leeper)[16] in Denver, Colorado back in 1979 so it's an old story where they found in the homes of the kids who had childhood leukemia they were more exposed to specific, or higher in a way, electrical-electromagnetic environment just with the usual lines of electricity in the homes. And that other studies looked at proximity to power lines and high power lines in many different countries and there were two analyses published in 2000, one by Ahlbom[17] and one by Greenland[18]. And let me say that these two guys who I know very well are not really environmentalists so if they found an impact it was really in there. So what did they find? They found that although all studies didn't get the same results, in general exposed kids had an increased risk of cancer and in particular, of leukemia and in particular, of acute lymphoblastic leukemia - not a very high risk, but nevertheless, a doubling of risk. So kids living underneath or close to a power line had twice the risk of leukemia compared to kids living further away. Since that time other studies have been done, including three new meta-analyses and they found the same things. So now we know that, in general, for childhood leukemia there is a risk between 1.5 to 2 which can go up to 5 for acute lymphoblastic leukemia in kids either while living close to a power line less than 100 meters, but there is an impact up to 600 meters for kids, for whom when they did measurements in their bedroom during the night they were exposed to low levels 0.2 to 0.4 micro-Tesla. And that, I think, is recognized but that doesn't mean people are willing to act on it."

Bringing available information up to date, Sasco cited studies by Lennart Hardell, The INTERPHONE study and notably the Cefalo study. She displayed a graphic by Om Gandhi of the University of Utah (http://www.youtube.com/watch?v=Ts9yhmPFt14) depicting an adult person, a 10-year-old and a 5-year-old. It is recognized that cell phone radiation penetrates up to 75 percent into the

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[16] Wertheimer, Nancy and Leeper, Ed. Electrical Wiring Configurations and Childhood Cancer, The abstract begins, "An excess of electrical wiring configurations suggestive of high current-flow was noted in Colorado in 1976–1977 near the homes of children who developed cancer, as compared to the homes of control children." © 1979 by The Johns Hopkins University School of Hygiene and Public Health. The American JOurnal of EPidemiology. http://aje.oxfordjournals.org/content/109/3/273.short

[17] Ahlbom, Anders et al. *A pooled analysis of magnetic fields and childhood leukaemia. British Journal of Cancer* (2000) **83(5**), 692–698. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2363518/pdf/83-6691376a.pdf The group also included Ahlbom's colleague, Maria Feychting, concluded: "Our results have clear implications for future studies. The level of significance that we see for the excess risk at high exposure makes chance an unlikely explanation."

[18]Greenland S. et al *A pooled analysis of magnetic fields, wire codes, and childhood leukemia.* Childhood Leukemia-EMF Study Group. http://www.ncbi.nlm.nih.gov/pubmed/11055621

human skull. For children the penetration is much more ominous. “What does it show?”, she asked. “It’s very simple. It’s that usually when you are holding a cell phone to your ear of course the electromagnetic field radiation will enter on a given distance. The signal will be the same whether you are a kid or an adult but when you are a kid it goes 4 cm then it goes to the most central structure of the brain. Whereas in an adult the temporal lobe, as far as we know, there is not too many important things in there... there are, but never the less (laughter) but for the kids the central part of the brain is exposed. And kids, of course, have a thinner skull and a higher content of water in the brain so all that makes it for greater absorption by the brains of the kids.”

Absorption is not the only issue. It is what occurs during and after absorption. Sasco flashed a slide from a study by Dr. Nora Volkow[19], of the U.S. National Institute on Drug Abuse in Bethesda, MD. which demonstrated that the rate of glucose metabolism is increased following exposure to cell phone radiation. The legend under the images stated simply, “Spending 50 minutes with your cell phone pressed against the ear increases activity in the brain.” “And when a brain is exposed it changes the way our brains function. People, for example,” explained Sasco, “have looked at the way our brains function. When our cell phone is on or off it changes the way our brains metabolize glucose so it has a biological impact.”

Having established that cell phone radiation penetrates into the human skull and that the radiation does affect the brain although the military was already using the technology in weaponry, Sasco also noted the proven biological impact then continued to explain the ages at which the microwaves affect the human organism.

“”We see that anyone who has used a cell phone has an increased risk - about a 30 percent increased risk of getting a brain tumour,” she said citing work by the Hardell[20] group. “Nowadays, kids start using a cell phone at a much younger age, 5 or 6, very early, so we can expect a much higher rate of brain tumours than the ones we are seeing in adults.”

Yet another study, INTERPHONE[21], continued confusion in the public mind. It was the largest ever epidemiological study conducted on cell phones and various types of tumours.

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[19] Volkow, Nora et al. *Effects of Cell Phone Radiofrequency Signal Exposure on Brain Glucose Metabolism. JAMA. Feb 23, 2011. Vol. 305, p.8*

[20] Hardell, Lennart. *Long-term use of cellular phones and brain tumours: increased risk associated with use for > or =10 years.* Department of Oncology, University Hospital, Orebro, Sweden. http://www.ncbi.nlm.nih.gov/pubmed/17409179

[21] http://www.iarc.fr/en/media-centre/pr/2010/pdfs/pr200_E.pdf

Funding for the €19.2 million study came from numerous sources, including a €5.5 million contribution from the industry with €3.5 million coming directly from the Mobile Manufacturers' Forum. "It's a case referrant study where they compared people with brain tumours or with parotid gland tumours or with acoustic neuromas to people who do not have any tumours," she said.

Countries participating in the INTERPHONE study included: Australia, Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, New Zealand, Norway, Sweden and the United Kingdom. Although Ireland is an incubation centre for the wireless technology with a high rate of usage, it was not included. At 121 percent, mobile phone penetration in Ireland as of Jan. 2012 is up 50 percent from 2003 and on par with the rest of Europe. China, with the largest number of cell phone users was also not included.

The study was conducted by ELizabeth Cardis who occupied an office adjacent to Sasco. "We had a common protocol and it was well done. I think. Elizabeth Cardis did a lot of piloting studies and it was a well done study.[22]" As expected, reactions were mixed and it eventually came to be recognized as inconclusive at best. Even Sasco admits that the timing of the study, 1999-2004, may have played an important part in the outcome. "At the time," she noted, "cell phone usage was still limited and people who had cell phones were using it in moderate amounts, nothing compared to what we see nowadays... They had the numbers but they could not agree about the words to put around the numbers."

This cumbersome academic procedure did not affect the pragmatism of the military. While there were unsubstantiated reports that microwave technology had been used against the Women of RAF Greenham Common in 1984, an article by Richard Thomas[23] dated Jan. 2005 noted that the military was using microwave technology during Operation Desert Storm (2 Aug. 1990 – 28 Feb. 1991) to pacify the people of Fallujah using "domes" or "poppers" broadcasting ULF, VLF and UHF frequencies derived from US Navy undersea sonar and communications. The Greenham Common area again raised eyebrows in 2011 when two horses were electrocuted in the paddocks of nearby Newbury race course[24].

It was a further four years before the full INTERPHONE study was released concluding that "Overall, no increase in risk of glioma or meningioma was observed with use of mobile phones. There were suggestions of an increased risk of glioma at the highest exposure levels, but biases and error prevent a

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[22] Cardis, Elizabeth.

[23] Thomas, William. *Microwaving Iraq: 'Pacifying' Rays Pose New Hazards In Iraq.* 2005. http://www.rense.com/general62/mciro.htm

[24] BBC Sport. *Newbury horse racing deaths blamed on electrocution.* 12 Feb. 2011. http://news.bbc.co.uk/sport2/hi/other_sports/horse_racing/9395743.stm

causal interpretation. The possible effects of long-term heavy use of mobile phones require further investigation."

According to Sasco, "Technically speaking, the study shows an overall protective effect of cell phones (users of cell phones have a reduced risk of brain tumors) but there is, in fact, an increased risk for the ones who were the heaviest phone users (at least 1640 hours). This increase is clearer for temporal gliomas on the side of the head to which the phone was usually held, i.e. the risk is found exactly where it was expected."

Cindy Sage, co-ordinator of the Bioinitiative report commented on the release of the INTERPHONE study: "The "Key Message" at the end of the Cardis et al study still unnecessarily downplays possible risks. If the message from INTERPHONE is *'we wasted ten years and thirty million euros of public money'* on a study that says nothing much, then heads should roll. To end on this note is to undermine the real need now for change, for education, and for safer technologies.[25]" Another difficulty with the INTERPHONE study is that it was ending up its research just as 3G phones became available in 2002 and well before 4G and Wi-MAX entered the marketplace.

The INTERPHONE study was a "huge study conducted between 1999 and 2004" with 6,600 cases, 7,800 referants and specifically looking at acoustic neuromas was released. These tumours are considered benign because they are not cancerous. They grow on the acoustic nerve which controls hearing and balance. Because the acoustic nerve runs along the facial nerve which carries information from the brain to the muscles of the face these tumours can also cause numbness to the face. Public concern about cell phone use was further massaged by the study's conclusion which stated: "There was no increase in risk of acoustic neuroma with ever regular use of a mobile phone or for users who began regular use 10 years or more before the reference date. Elevated odds ratios (ORs) observed at the highest level of cumulative call time could be due to chance, reporting bias or a causal effect. As acoustic neuroma is usually a slowly growing tumour, the interval between introduction of mobile phones and occurrence of the tumour might have been too short to observe an effect, if there is one."

Thus the issue should have been put on the shelf. There was found only limited evidence for both malignant gliomas and benign neuromas in humans as well as limited evidence in experimental animals. Further there appeared only weak mechanistic evidence of how ELFs and EMFs could cause cancer in the first place. This last judgement flies in the face of findings of experts from around the world such as Hardell and Johansson in Sweden, Dr. Magda Havas in Canada, Dimitris Panagopoulos in Greece, Yuri Grigoriev in Russia and author Drs. Devra

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[25] Sage, Cindy. *The INTERPHONE Brain Tumor Study - Editorial Perspective.* http://www.bioinitiative.org/freeaccess/editors/perspective.html

Davis, Drs. Henry Lai and George Carlo in the United States. Even fellow epidemiologist Dr. Gerd Oberfeld, of Salzburg's Health Department, has recognized that non-ionizing radiation causes electrons to break free from a cell's nucleus creating cancer causing free radicals, following Panagopoulos' findings of evidence of DNA damage.

The five year delay in releasing the INTERPHONE study was delayed by the judgement of the IARC's Monograph panel's members. "One can only wonder why on earth it took them so long to get this result out," said Sasco, "and the reason was the people could not agree on the interpretation of the results. The got some numbers but then they did not agree on the words to put around the numbers."

Further confounding the finding, the study threw up evidence that there are indications that limited use of cell phones could actually have a protective effect because people who only used their phones occasionally were found to have fewer brain tumours. It is in the heavy users that the damaging evidence was uncovered. It was in supplementary evidence in an annex where Sasco noticed a "smoking gun". "But, the ones who were the heaviest users have an increased risk." objects Sasco, "So to me that study was positive and it shows what we expected that the heaviest users were the ones where to see the risk." That risk for heavy users is double the risk faced by ordinary users.

Returning to the IARC report, Sasco explained that there is a distinct difference in the 2A / 2B grouping which raises cause for concern. It is the difference between 'Probable' and 'Possible'. "Why do I care?" Sasco asked, explaining, "I called up my son and said, 'It's 2B and it should have been 2A' and he said, 'Why do you care? People are not going to understand what you are talking about.' I said, 'No, no, no. It's exceedingly important.' Why is it exceedingly important? Because if this had been put in 2A for a number of countries as soon as an agent for an IARC Monograph is listed under 2A then some decisions are taken such as listing the product as a carcinogen setting up legislation or regulation, compensation when its an issue of occupational carcinogen. So it means you have to do something. Whereas for 2B, that's okay. Wait and see.'

Dissent with the IARC findings was inevitable. Even before the report was issued, 39 individual scientists and 10 non-governmental organizations submitted an open letter to the IARC director citing conflicts of interests, primarily the man chosen to be the chairperson, Prof. Ahlbom, but there were others, the timing of the Monograph, its incompleteness and the fact that industry insiders had served as observers. Their objection threw up numerous issues. "In particular," said Sasco, "was their choice for the chairman for a meeting, Anders Ahlbom. How did we know about this? Because a very clever investigative journalist, Mona Nilsson from Sweden, called up Anders Ahlbom, because usually they say on the IARC site you can see the Conflict of Interest form prior to a the meeting. So I had been looking for this form but they never came out before this meeting. So Mona

NIlsson called up Anders Ahlbom and said ‘Could I see this Conflict of Interest form?’ And he said, ‘No problem, I’ll fax it to you.’ He faxed the Conflict of Interest form and, of course, it was written in there no conflict of interest. Nothing. So then she just Googled Ahlbom and what came up? She found a consulting firm in Brussels with Anders Ahlbom, Gunnar Ahlbom, and another Ahbom so with this Ahlbom, his brother and the wife of one of them, I do not know which one of them, who were doing consulting in Brussels in fact on behalf of the Swedish cell phone industry. So I said, ‘Don’t you think this is a conflict of interest ?’ And Anders Ahlbom said ‘No’ because, in fact, he apparently withdrew from that consulting firm two weeks prior to a meeting. Nevertheless, the IARC director listened to that one and this guy was not the chair of this meeting. It was Samet.[26]”

A subsequent study underscoring minimal effects on humans by microwave radiation came with the CEFALO study released in 2011 and conducted in only four countries with a limited 352 cases of brain tumours published after the IARC Monograph. A leading member of the research team was Maria Feychting, co-author with Anders Ahlbom of research studies going back to 1993. Funding for the CEFALO study is unclear, according to Sasco, who offered a ‘cut and paste’ excerpt of the summary which found: “Regular users of mobile phones were not statistically significantly more likely to have been diagnosed with brain tumours compared with non-users.”

Even by Sasco’s defensive standards, she called the CEFALO study findings “an exceedingly strong conclusion”. It states: “The absence of an exposure-response relationship either in terms of the amount of mobile phone use or by localization of the brain tumor argues against a causal association.” Looking behind the findings, Sasco found evidence which consistently runs counter to the conclusion. What we see in almost all the odd ratios in all the tables are greater than 1.” This means greater than a 50-50 chance that tumors are related to cell phone usage. Reading between the lines, she then demolished the value of the study claiming that it included regular users with an average of at least one call per week over six months and the fact children who had cell phones in their own name had double the risk of developing brain tumours.

“”If they are interested in statistical significance they had it in their study. So how can they write as they did, “short-term use of mobile phones does not cause brain tumors in children and adolescents’?” Subsequently, Sasco, the black widow devouring the male to protect the unborn, challenged one of the authors of the CEFALO study at a meeting in Brussels who denied that the facts as she presented them were included in the report. He also distanced himself from the subsequent press release and resultant media reports that claimed cell phones are safe. When she asked him about the prospect of grandchildren she was told “It’s none of your business.” She shrugs her shoulders in disbelief that experts

[26] Dr. Jonathan Samet, University of Southern California, USA

could be in denial for any long term effects from cell phone radiation and mothers who are presented with misleading information. It is about the children.

"Although I am a cancer epidemiologist, I may be arguing against my own chapel in a way, but I think there is no need to wait for actual proof in epidemiology because unfortunately in cancer epidemiology it takes a while before we see the impact. We think in terms of asbestos it takes 40 years to get a cancer. It takes a long time. Do we really have to wait until we have this uncontroversial evidence? I don't think so because when we have good data from experimental animals, toxicological data, then we should be able to act even if it in the name of the Precautionary Principle. We have to keep in mind is one of the reasons we don't have epidemiological data is because everything is being done for epidemiological studies not to be done early enough," she said.

Sasco cited the case of genetically modified foods and vaccines 25 years ago where again there was little investigation of their long term epidemiological effects with no research being conducted. She drew a parallel to the experiences of John Snow, the father of epidemiology, and the London cholera epidemic of 1854. Snow used a dot map to illustrate the cluster of cholera cases around a water pump and statistics to illustrate the connection between the quality of the water from a pump in London's Broad Street and the concentration of cholera cases. He showed that the Southwark and Vauxhall Waterworks Company was taking water from sewage-polluted sections of the Thames and delivering the water to homes, leading to an increased incidence of cholera. "In nowadays' terms, John Snow acted in the name of the Precautionary Principle and that helped," said Sasco, "So we have to do the same thing for other sources of noxious substances around us, the microwaves and we need to try to convince people, the population, the media, the industry, the politicians that maybe we should act to prevent exposure in particular of the most susceptible in our population, namely the foetuses and the children."

This concept of clusters has also been applied to cell phone technology and while there are documented reports of clusters of cancers around communications mast, there has been no major epidemiological study to determine the cause of the cancers. Since cell phones operate at relatively low power levels the time between the use of the technology and the emergence of disease can take decades to prove. It is, what Devra Davis in her book, *Disconnect: The Truth about Cell Phone Radiation, What the Industry Has Done to Hide It, and How to Protect Your Family*[27] quotes Dr. Alan Frey who says, "Those who set up studies that are to supposed replicate work on the blood, brain barrier, can make changes in the design that are small but critical. Basically what is to be supposed an identical experiment with contrary results turns out to be no

[27] Davis, *Devra. Disconnect: The Truth about Cell Phone Radiation, What the Industry Has Dne to Hide It, and How to Protect Your Family.* Dutton. New York. 2010.

such thing. Instead, studies are done not to clarify the problem, but to confuse people.We've got quite a history of that in this field."[28]

Thus, with few exceptions, clusters are not being studied and what studies which are being done, as explained by Sasco, are being done with the result being more confusion as explained by Frey. In Ireland, for example, Mary Harney, as Minister for Health, refused requests for baseline studies when new communications masts were erected or to investigate know cancer clusters. Cancer clusters surrounding masts have been investigated with positive results, usually in isolated locations with little impact on government policy. The sole major case against a cell tower operator occurred in Cesano, Italy where a cluster of leukemias led to a ruling that electromagnetic frequencies were the cause. On St. Patrick's Day, 17 March 2011, the Vatican was ordered by Italy's Supreme Court to pay compensation to the town of Cesano near Rome after a long court battle over whether or not Vatican Radio's 60 masts have caused cancer in local children.[29] There remain questions about the political nature of the case itself plus the presence of masts operated by the Italian navy in the area.

Overall conclusion as the controversy rumbles on will ultimately, not unlike GMOs, fall somewhere between two extremes, either the controversy will continue until evidence becomes so widespread that it is inescapable, in which case the industry is uninsured - or governments will adhere to the Precautionary Principle. As defined on the Europa website[30] which provides summaries of EU legislation, the onus of proving a product such as cell phones is dangerous rests with the consumer. In the event consumers of organization take action, the the onus rests with the manufacturer or importer to prove the absence of danger.

"We don't say, 'Don't use cell phones' I have a cell phone," she said as she looked down at her handbag. "Try not to use it all the time. Maybe you can still talk to people which would be a good idea without a phone and try to use a wired land line and keep the phone away, I mean the usual things."

While working with Servan-Schreiber in 2008, the duo was among the first to launch an appeal to say there was evidence that there is evidence of biological effects of cell phones before the results of the INTERPHONE study were released. When their appeal was translated, it became known as the Pittsburgh Appeal but it started in France. The same year Russian National Committee for Non-Ionizing Radiation Protection warned that cell phones are unsafe even for short conversations. Children under 16, pregnant women, epileptics, and people

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[28] Ibid. Pg. 88.

[29] Vatican Causes Cancer? Part 2: The Verdict. http://tessera2009.blogspot.com/2011/03/vatican-causes-cancer-part-2-verdict.html

[30] http://europa.eu/legislation_summaries/consumers/consumer_safety/l32042_en.htm

with memory loss, sleep disorders and neurological diseases should never use cell phones[31].

The question, then, of what to do, has many answers. For Ireland and particularly the U.K. and France, the first thing is to avoid building homes under power lines. At present, the only stipulation is that the distance from the top of the roof to the power line is 15 meters and to try not to build schools near power lines. “I had a question in London from a scientist,” Sasco noted, “for young women scientists particularly who said there was no risk. I was wondering what they would do with their own kids because for the kids of others it’s always easier... ”

And for men, Sasco noted that she had testified before the Italian Senate during the Berlusconi media magnate’s ascendancy, that electromagnetism interferes with sperm production. She suggested men should not keep their cell phones in their trouser pockets.

Sasco concluded, with a citation from Einstein which said:

> ***The world is not dangerous because of those who do harm but because of those who look at it without doing anything.***

What male then could disagree with the black widow endowed by Nature with stronger venom? What woman could disagree with a female who only took nourishment to feed the unborn?

But there remains the steadfast loyalty to France where Sasco returned to raise her own children and like Joan of Arc has become a symbol of inspiration, dedication and determination and like France’s other great investment in symbolism, the Statue de la Liberté, for those who stand in her presence, she and her demands can not be ignored.

Note: following her successful visits to London and Dublin, Dr. Annie Sasco returned to her responsibilities at University Victor Segalen Bordeaux II. A week later she was notified that she was no longer allowed to take students. Last year, on International Women’s Day, 8 March 2011, she was forced to surrender her research team and offices.
An e-mail enquiry to University President Manuel Tunon de Lara and the Conseil D’Administration seeking clarification of Dr. Sasco’s status has not been answered.

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[31] http://www.radiationresearch.org/pdfs/rncnirp_children.pdf

10. Article No. 3: Tribute to Mr. Victor Nixon:

Tribute

EMF Warrior

Victor Nixon points to U.S. Federal action

> *It is the international system of currency which determines the totality of life on this planet. That is the natural order of things today. That is the atomic and subatomic and galactic structure of things today! And you have meddled with the primal forces of nature, and you will atone! Am I getting through to you, Mr. Beale?*
>
> Paddy Chayefsky
> Network, 1976

Victor Nixon disagreed.

Early on Nixon explained, “I am a listener, the Quiet One; I reap / glean information applicable to the situation at hand. This enables me to decide on the best course of action in minimal time - Fine tuning it as I go. Confrontation I can deal with. In whatever form it may take. Physical confrontation without words I excel at, actually enjoy. I have never lost a physical confrontation of any size with or without weaponry. I have just one confrontation scar physically, one mentally. Paid that latter back in Sudan in 2006; thought I was done; apparently I’m not. This time it’s a different kind of fight - ‘The pen is mightier than the sword’, is an adage that I am using right now – A different form of confrontation.”

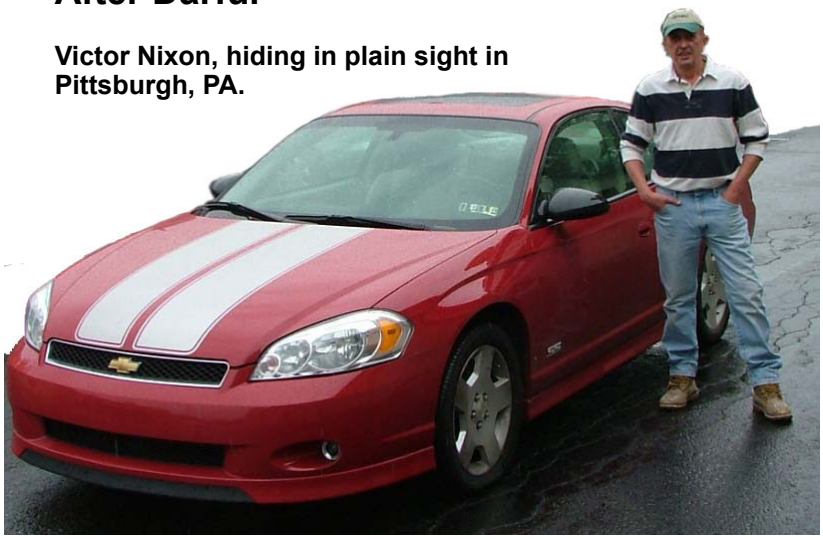
Nixon had embarked on yet another life-saving mission based on self-preservation, idealism and pragmatism. A friendship began with the self-

introduction of “My name is Victor Nixon, originally from England, and a M.Sc. Computer Systems (Automation) Engineer with 28-plus years global experience. Presently I am embroiled in a litigation lawsuit with an electrical utility company via the Pennsylvania Public Utilities Commission which has been on-going for over a year.”

The introduction was prompted by a call for submissions to the Irish government’s Joint Committee on Environment, Transport, Culture and Gaeltacht which planned to conduct an investigation into the proliferation of electromagnetic signals and operators. The committee door had been prised open by Patricia Faherty in Co. Donegal who innocently asked if she could make a submission outlining the problems associated with microwave technology.

After Darfur

Victor Nixon, hiding in plain sight in Pittsburgh, PA.



Upon questioning, the Clerk of the Committee admitted that anyone could make a submission. It opened the floodgates as well as Nixon’s resurrection: officially, following the Darfur genocide in 2003, Nixon “did not exist”.

As the genocide in Darfur continued Nixon wrote two novels, calling his contribution to the cause "entertainment with a purpose." He published *Kalunga: A Global Warning* on President Barack Obama's Inauguration Day and the book made Amazon's "Hot New Releases/Future Best Sellers" list. The word "kalunga" means "between two worlds," which, according to Nixon, is where the book's main character finds himself. "The main character is stuck between a normal life and his past role as an expert life-taker, trained to be that way," he said.

Nixon attached supporting documents with his introduction, adding, “Personally, I do not believe that there are people who are ‘electrosensitive’; I do, however, believe that the secrecy enveloping the “Mysterious Worldwide Hum” is unlawful and that the perpetrators will shortly be brought to justice. “This ‘Hum’ and

‘electrosensitivity’ are caused by a single, ubiquitously utilized piece of equipment and a 40-year-old technology rebranded as Broadband Power Line Communication (B-PLC). I have evidence and proof that confirms this statement,” he added, explaining that it had taken him two years of research to solve a mystery with world-wide ramifications.

Nixon ended the e-mail with a challenge, “Your next move I believe.” Confrontational. British, definitely SAS.

Thus began a blind correspondence. As events unfolded, Nixon’s conclusions became more pressing, the conspiracy of silence more pronounced, the revelations of world-wide corruption, heroism, and self-serving egos grew increasingly malevolent.

Next came a basic lesson in electricity and the creation of currents. Victor’s stance emerged more clearly, “OK John - As any Starfleet Officer would say while holding a Phaser to a Borg's head, ‘Assimilate this!’ Before we begin – I received Power Spectrum samples from DENMARK this morning. The frequency distortion is identical to the UK, NZ, and Australia Same equipment. Incidentally, this entire ‘thing’ can be likened to the story of ‘The King’s New Clothes’.” A personality emerged. Persistent, intelligent, aggressive. Nixon’s humanitarian instinct as well as his grasp of how society functions was revealed in the next short observation, “There is no safer alternative. We as a species need to look further afield than our own backyard and under the streetlamp. Stay tuned for the next exciting episode.”

Regarding the Irish enquiry, Nixon was less than sanguine, “You do, of course, realize that the Irish government ELF inquiry will end up giving electrical, EMF, and ELF emissions the all clear. I gave you a taste of the mentality that an individual must preserve to nail these bastards that are doing this to us.

“It is becoming plain to me, as ridiculous as it may sound, that ‘they’ and the PTB are attempting to ‘offload’ a few million ‘Boomers’ by early death from natural causes - Think about it. I helped a Danish man, Ralph Sylvestersen, to take spectrum analyses over the past couple of days. His ‘noise’ was 93dBC - As loud as a diesel train pulling away from a station - IN HIS HOME! The same errant frequencies show up on EVERY one of his scans that are showing up globally - But then it would, it's the same equipment. To tackle "them" one must have the tenacity of a Jack Russell Terrier - Sink your teeth in and HANG ON. It's going to be rough ride.”

In 2009 Sylvestersen complained that it was then “impossible to find a peaceful place” in Denmark in what he describes as a “noise inferno”. Using his logic that “wiring minimizes the electrical field strength” raises the question of what type of inferno is being created by reliance on wireless technology.

In addition to his reference to Sylvestersen, Nixon included a plea from (name withheld at Nixon's request) writing from east Tennessee after fleeing a "sound in Oregon" where she lived for 38 years. To her congressman, Democrat Peter DeFazio, she wrote, " Human hearing is so individual and I am unfortunate in this situation to have good hearing, to be sensitive to radio frequency transmissions and to live in a home that seems to be in direct line of their antenna transmissions. It is so hard to see my dog and the wild animals suffer because if I hear it and it is distressing to me it must be excruciating to them. Help us please." Her plea fell on proverbial deaf ears, as is happening across the world.

Perhaps the best way of describing Nixon is the way he described himself early on. "Ya know John - Some people describe me as having had a very 'colorful' life. But there is one thing that I have always stood for in all of my actions - Doing what I think and know is right, honest, and honorable - No matter if it's the hard way of doing it or not. I do not take the path of least resistance. I take the bull by the horns and fight it to the ground."

His bravado was sorely tested by the Irish. A week before the deadline for submissions Nixon commented, "I will not kow-tow to any 'inquiry' regardless of its origin and seemingly good intent. The Irish inquiry will not even address the issue in its entirety - It's called Smart Grid - And it's global." When he first submitted his complex electrical explanations, complete with diagrams and scientific formulae, the Clerk for the Joint Oireachtas Committee on the Environment, Eugene O'Cruadhlaoich, noted that the computer files could not be opened by the Irish Parliament's (the Dail's) computer system.

Among the documents he submitted were readings taken from around the world, including one from Sylvestersen who commented from Denmark: "Tonight there is a heavy 'hum' so I have made a new measurement. Serious as it can be - I think it is life-threatening, and yes, I am very uncomfortable tonight."

Simultaneously, Nixon had also taken on the West Penn Power Company based in Greensburg, and the Pennsylvania Public Utilities Commission. On 10 Jan. 2012 he submitted a letter to Rosemary Chiavetta, Secretary to the Pennsylvania Public Utilities Commission in Harrisburg, including seven exhibits, bringing to 26 the number of documents relating to the proliferation of microwave radiation, specifically through Broadband over Power Lines. Among the documents submitted were spectrum analysis measurements, power spectrum scans, field measurements, letters of complaint from people across the United States and a NASA research document, "Mechanical Resonant Frequency of the Human Eye in Vivo" which explains visual disturbance in the 18Hz subharmonic range.

In return, Victor asked for regulatory compliance documents as well as test measurement documents. If these even existed, the documents would prove conclusively that the public was being radiated.

Chiavetta remained evasive. Following a request regarding the status of numerous formal complaints to the PUC, she reminded Nixon, “It is not necessary for you to provide me with a status report of the various complaints and litigation you currently have before this Commission.”

“I am sure,” countered Nixon, “that these formal complaints are in the process of being legally administered. However, as I have not received any communication regarding any of them from any of the parties concerned utilizing eServe or any other delivery method notification since Nov. 15, 2011 it would be very much appreciated if you could explain and summarize where each is in said legal process.”

Chiavetta was not giving anything away and Nixon would not be ignored. His reply prompted Chiavetta to reply in late January that Complaint C-2011-2266144 was being considered by an Administrative Law Judge and a second complaint, C-2011-2270951, had been assign to an ALJ for hearing. Arguably ultimately responsible for correspondence to the Pennsylvania PUC, Chiavetta referred to protocol, explaining that the commission does not accept complaints by e-mail or FAX. “Therefore,” she argued. “please refrain from emailing me complaints, pleadings or documents involving your cases before the Commission. Either use the Commission’s eFiling system or mail your filings by first class or overnight postage to my Harrisburg address with verification, original signature, and certificate of service to the other parties of record.”

She, thus would accept complaints on paper, but not electronically. The proceeding had apparently been initiated but without notifying Nixon. “These (expletive) cut me out of the ‘notification’ loop and went ahead with legal decisions,” said Nixon.

In what should have been a straight-forward explanation, procedures put in place blocked his access to the decision making process. “My original email at the beginning of this, now series of repeatedly asked queries, was simply to discover the legal administration progress of my formal complaints with the PA PUC. I have been informed by you today that they have been enacted upon without notification or informing me of their procedural execution,” Nixon told Chiavetta.

To put a fine point to Nixon’s argument he explained, “I should state the following: Administrative decisions can be made in private. Judicial actions and decisions enacted in camera based on a formal complaint made by a member of the public cannot, and are illegal. Presently, I am seeking legal advice from the Pennsylvania Attorney General’s office and the U.S. Federal Attorney General’s office. The latter being contacted as a Pennsylvania State official has violated my Rights.”

The lack of clarity from Chiavetta and the Pennsylvania PUC formed the core of Nixon's complaint to the Unites States Department of Justice that his civil rights had been violated, firstly on the basis that microwaves were being transmitted through his body without permission and secondly that barriers had been erected and used to prohibit him from seeking redress through organizational protocols and red tape. The significance of this complaint to the U.S. Department of Justice is that others planned to support Nixon at the Federal level and the wall of silence would be breached.

With another legal challenge in the process, Nixon turned his attention to the issue of "The Hum" being experienced around the world. The phenomenon was first reported in the United Kingdom but seemed focused on Bristol in Wales in the mid-1960s. The Hum is often known by a local name: the Taos Hum in New Mexico, the Largs Hum (Scotland), the Kokomo Hum (Indiana). It is heard across Northern Europe, the USA, Canada, Australia and New Zealand and has become a global phenomenon. In 2012 The Hum surfaced in Windsor, Canada and in Co. Kerry, Ireland.

According to Nixon, The Hum is a manifestation of the electrical principle of reactance which even challenged Einstein. "Reactance is similar to the standing wave effect on a guitar," explained Nixon. "The strings are fastened between two points and are tightened. Pluck a string and it vibrates, moving the air around it and making what we call a "sound". This vibration depends on the thickness of the string and how tight it has been pulled. Now, if you lightly touch the string once at its centre point the vibration of the string is halved. From this centre point the vibration moves away from the centre point along the string, reflects at the end and moves back toward the centre, where you touched the string. The vibration meets itself and rebounds off itself back along the string again repeatedly. When the two vibrations collide a "sound" is produced that is twice the original frequency – reactance – It is actually a Reactance Standing Wave. This is a harmonic – It is twice the original frequency."

Touching a guitar string anywhere as it vibrates creates two separate waves producing two different frequencies and because these two waves are on the same guitar string they are considered imbalanced. This is the principle of subharmonics or distortions. The word "harmonic" implies a "balanced" wave. A subharmonic is an imbalance. Because of the imbalance, the "sound" only occurs once and is the result of taking one (wave's frequency) from the other and not a doubling as in the above example. This is a subharmonic – It is the result of the canceling out of the main frequency and leaving just the remnant. Unlike a guitar string which eventually stops vibrating after being plucked, modern electronic signals such as Tetra or Wi-MAX are pulsed continuously. When a frequency is produced that doesn't stop, it results in a subharmonic "hum".

“I noticed,” he later explained, “that IBM is among the big players in trying to cure reactance in power lines. As stated, 7-9 percent is the historical acceptable loss in electricity transmission lines. My mental arithmetic comes up with six percent to reactance and harmonics. Smart Grid is destined to save each consumer 1-2 percent on their bill; for which the electrical utilities get a whopping $20 Billion in Stimulus money if they realize by August 2012. The driving force behind the “Smart Grid” is taxpayer money at every level.”

On the Google Forum Nixon explained what the Hum was: “Today (Sunday) O'Brien (proprietor of the Irish Independent) and Murdoch allowed their Editor in Chief of the Irish (edition of the Sunday) Times to run a misleading article on the (since May 2011) Beaufort Hum.

“The 4th column - Discordant Note - States that one in five (20 percent) people hear it and that it is the note of Eb (Eflat). It's actually Eb2 or F#2 at the frequency of 90.98Hz which is 27-32 cents away from the actual note. It's also not the note that people are hearing but the Electrical Power Subharmonic of that (almost) note. And as these one in five hear in the C-range, guess what it sounds like? A diesel engine. Whooda thought?!

“Octave Harmonics and Electrical Power Harmonics are not the same. It misleads to quote one in terms of the other because the operand differs. Plus the sound you hear is NOT the frequency that is picked up by instrumentation. The sound that you hear is the remnant of the collision of sine waves.

“I've attached the article and a Power Scan showing the 90.98Hz interharmonic right here in Pittsburgh today. Same everywhere - And it would be, it's a global communication system that ‘they’ are denying exists,” Mr. Beale would have approved.

In spite of requesting that Nixon not contact her, PUC Secretary Chiavetta again received another request for up-dates regarding his complaints. His first complaint against emission for equipment owned by West Pennsylvania Power had been assigned a docket number to be adjudicated by an Administrative Law Judge. A second undocumented complaint had been given an Assignment Notice which was change on the same day. A complaint relating to equipment owned and operated by Verizon had been referred to the U.S. Federal Communications Commission (FCC). A third complaint carried a docket number which was not associated with any of Nixon’s other documents in which the FCC bounced the original complaint back to Chiavetta’s desk. “I can only assume,” Nixon told the PUC secretary, “that as WPP did not respond with objections to the complaint in PA PUC Docket No. C-2011-2266144 that there was No Contest to my complaint. Please send me a timetable of expected dates when the associated equipment is to be de-energized and removed.”

He ended his statement with the words, “I have provided you with 100 percent irrefutable proof and hard evidence of this technology’s deadly emissions; you will not allow me to present it in a court of law. Evidence of this technology’s equipment installation is everywhere; in substations and on every electrical power transmission line pole. The cover up of this technology and its destructive emissions must end, the equipment de-energized and removed.”

Chiavetta’s response was short - two lines - telling him it was not necessary for him “to provide me with a status report of the various complaints and litigation you currently have before the Commission.” Nixon had quickly become a nuisance.

The same week up to 10,000 cattle died in Vietnam, 55 buffalo died mysteriously on a Cayuga County, New York farm, 200 cattle died in Wisconsin and the Canadian Department of Fisheries and Oceans reported a large number of dead seals off the coast of Labrador with a number of other unexplained animal deaths in Ontario, Canada, Italy, Brazil, Sweden, the Philippines, the U.K., Haiti, Australia and New Zealand.

As February began Nixon and his son commenced building a tablet computer using the Android operating system for full digital integration with Smart phones and computers. He also reported that the weather was fine except for the “darn noise”. It was this “noise” that led Nixon to oppose the so-called Smart Grid system of distribution and metering.

“In October 2009 I began hearing a noise,” he explained, “It was, and is, a low-frequency noise, the (musical) notes of B_1 and Bb_1 (B flat 1 – Subscript 1 denoting octave #1) joined together to produce a monotonous fluctuating drone 24/7 in the volume range of 60 decibels (dB), the level of someone talking, to 80dB, the level of a running kitchen garbage disposal unit. Ultimately I discovered that these notes were harmonics in the dBC range of emissions from power lines outside of my home.”

In a highly reasoned document to the United States FBI - recommended to him by a police official in South Fayette Township outside Pittsburgh - Nixon explained the results of his research into the sound - an unwanted presence reported across the northern hemisphere. Nixon explained that Federal and State environmental protection agencies no longer regulate noise levels nor do they have at their disposal people who are capable of monitoring Smart Grid emissions.

“My research has shown that there is no IEEE or NIST Standard governing Smart Grid implementation per se in the USA,” said Nixon, “Consequently, the Smart Grid industry is broadly employing equipment that is “iffy” at best; injurious and probably harmful to all life as a given physical fact. Neither is there any higher authority overseeing the installation of Smart Grid other than the Smart

Grid industry itself. Every game piece is set in place for a catastrophe of global proportions to imminently occur.

"Whether people can hear this noise or not the physical effects will ultimately be the same. This is the part of the issue at hand that did not, and does not, make sense to me to this day; but my research has proven it to be true. The people that are working on, and rolling out, this technology are also harming, and possibly killing, themselves along with millions of others, human or otherwise."

In his summary Nixon noted how the unseen menace of microwaves began to surface in California with concerns about a tower in San Francisco. Anthony Hilder, writer and filmmaker, painted a more extreme interpretation of Nixon's evidence to the Irish government and the Pennsylvania PUC. "Twenty million death rays hit San Francisco - what else can you call it but murder," said Hilder, "Death rays from the Sutro Tower that overshadows San Francisco. Death from above in the form of rays that you can't see but are going right through you." Nixon's reaction was "Someone, somewhere has to come up a very subtle, non-confusing, 'This is important stuff for all of you to realize folks,' explanation. If Hilder can't get the message across he's wasting his time trying. To fight this in the Courts you have to be specific and 100 percent data backed up to prove it. Right now I'm supplying and trying to fire people (who hear the associated 'noise') up to file formal complaints in their respective areas across the USA. If sufficient people file it'll start to get noticed. If people can't hear it, people don't care."

Hilder, too, had made a submission to the Joint Oireachtas Committee. As the deadline for submissions neared, a member of the committee circulated Nixon's submission and sent it back to Victor. "Why has this person sent me my own file," he asked.

At the same time, Eugene O'Cruadhlaoich, Clerk of the Committee, circulated a letter explaining that due to the pressure of business and in spite of the looming deadline, committee members could not be kept to a schedule. "The Committee recognizes that this is a very important issue and will study your correspondence / submission in detail. However, the Committee has a very busy work schedule and is currently looking at a number of issues. The Committee will continue to work through its work schedule but cannot at this stage say when it will get to carry out a detailed examination of the issue of the 'Effects of Electromagnetic Radiation and the rise in numbers suffering from Electrosensitivity'."

The final sentence was telling. When an official thanks you for your submission it is often subtrefuge - often with an unanticipated outcome. As participants in the national pastime Irish politicians prefer an exceptional amount of "wiggle room" to the point of being inscrutable. O'Cruadhlaoich's "The Committee has asked me

to thank you for your correspondence / submission," was professional and noncommittal.

Another recipient of O'Cruadhlaoich's letter, Prof. Johansson, in Sweden, replied, "Thank you so much for your reply. I take it that the procedure is for the committee to review the submission and then decide if / who they wish to speak with and invite them to a meeting on another date. I have been informed that the matter will be considered before Easter." Ever the optimist, Johansson was the first to warn the users of the dangers of radiation from the old fashioned cathode ray tubes in computer monitors and the industry never forgave him. Among other issues, Johansson demanded that the Irish government cease leasing frequencies to companies world-wide to test their technology in a live environment.

Penny Hargreaves, was married to an English stockbroker and lived in England for a while before returning home to New Zealand to set up an equestrian center. She found herself in the middle of the EMF controversy and also made a submission to the Irish government committee. "It occurs to me," she said "that if you can get some kind of enquiry there, we can all fall in behind you. We have scientists and activists around the world available which might have some effect - if only to let government know that they are being watched..."

Hargreaves is, like Nixon, involved in a court battle against the microwave colossus. "I have 64 acres of land in the city which also will be up for subdivision once I get the radio tower relocated which is next to my land - but need some cash input. The 358 foot tower has been damaged and sank so badly in the quake that it has been removed but they are threatening to put it up again - currently they have erected a small 30 metre radio tower on very badly quaked and liquefied land and this is being used to target me and also seems to be used to trigger off quakes."

Just as the invisibility of microwaves leaves most residents of the planet blissfully unaware of the dangers passing through their bodies daily, the obscurity of Hargreave's New Zealand location does not mean it is unimportant. There Landis + Gyr developed a Smart Meter. The company was owned by Bayard Capital, a Swiss-based firm headed by Cameron O'Reilly, an Irish-Australian, who is the son of Sir Anthony O'Reilly, former Irish international rugby star and retired head of Heinz food. Another international financial house headed by U.S. presidential candidate, Mitt Romney, is also active there. Both O'Reilly and Romney's Bain Capital have links to the Carlyle Group financial cartel.

According to Hargreaves, "Sounds crazy - have you ever read anything about longitudinal interferometers and Eastland 1987 patent - if you have you will find out the incredible info that radio towers placed in strategic locations and several frequencies focused on to fault lines against volcanic rock can make quakes- All the bigger quakes have been only where the radio network frequencies unusually

powerful frequencies beam and collide on volcanic rock in a high water table - both the volcanic rock and high water table act as a mirroring effect. Why would this be deliberately done? Is it just co-incidence that Canterbury is full of oil, gas and minerals and only Pegasus Bay - which is currently being scorched earth and people cleared from the land with the claim it is unsafe to live there but no geo reports are presented - Pegasus Bay is the only southerly sheltered big area along the east coast which would be suitable for oil refineries etc. Is it just co-incidence that Radio Network was owned by Texans, the Mays family and O'Reilly and now part-owned by these two but the Ouruhia land was sold for 317 million to Bain Capital and Thomas Lee who are big US investment companies and the former is owned by Mitt Romney current favorite to be Republican president."

It is no small irony that Romney, the first Mormon candidate for the U.S. presidency, is a member of a religious group, properly known as The Church of Jesus Christ of Latter-day Saints, based in Utah. There the U.S. National Security Agency is constructing the world's largest internet spycenter at Bluffdale, Utah, a half hour's drive south of Salt Lake City.

Thus, both U.S. Presidential candidates have embraced wireless technology, albeit for different reasons - Obama has publicly endorsed Smart Meters and Romney, if elected, would be responsible for what happens to all of the information collected by e-mail, Smart Meters and the personal information contained in the genealogical archives of the Mormon Church.

With the Joint Oireachtas Committee on the Environment deadline for submissions approaching, experts such as Dr. Karl Moore, DunLaoghaire, Ireland; Dr. Magda Havas, Trent University, Peterborough, Ontario; Prof. Olle Johansson, the Karolinska Institute, Stockholm, and a large number of people from all walks of life around the world voiced their concerns to the committee headed by Co. Cork politician, Ciaran Lynch.

Dr. Moore, a physicist involved in electro-optical systems for underwater imaging in the United States, told the Committee, "It is a fundamental law of physics that vibrational waves of equal or similar frequency and intensity will interact by resonance. If one wave signal is greater than the other, it will override the weaker signal by modifying it's signature and/or by entraining the weaker signal. If information is carried by such a waveform, it is easy to see how the quality of information will be degraded and the likelihood of miscommunication will occur when subjected to such interference from the background noise generated by technology operating in the same frequency bands. This has huge health ramifications when the internal communication system of the body is involved."

Dr. Moore advised the committee that the present standards for exposure to electromagnetic radiation in Ireland is based on recommendations by the

International Commission on Non-Ionizing Radiation Protection (ICNIRP). The commission is a voluntary NGO. Among the founding members is Anders Ahlbom (subsequently disgraced for his involvement with his brother's public relations firm which lobbies the European Parliament on behalf of industry). The Irish Government cites Ahlbom as one of its advisors.

"ICNIRP," said Dr. Moore, "is not the only standard for radiation safety. There are others, more up to date ones, such as the Salzburg Standard (2002), the BioInitiative Standard (2007), and even BMW have come up with their own, which recommend safety levels with radiation levels that are thousands of times less. This should be indicative of the discord and lack of understanding of the health ramifications concerning the telecommunications industry and of what constitutes a safe level."

The standards established by the voluntary group failed to account for a multiplicity of signals, each saturating the planet and everything on it. And even less credible is the fact that ICNIRP's standards are merely recommendations and not legally binding. Thus the Oireachtas Committee was faced with a dilemma - either protect the people and conduct a thorough investigation or hold to standards established by an industry which can not be insured and dominated by individuals who have industry ties.

Although Nixon's work was extremely detailed, he questioned the need for submissions to be summarised by government clerks before presenting them to the lawmakers. "I am concerned," he said, "that the Eire inquiry is going to 'summarise' submitted information. Unless the information contained in what I sent is taken / viewed in its entirety the issues will stay buried." His concerns were not unfounded.

Following completion of his submission to the Irish government, Nixon celebrated his daughter's 16th birthday with the fatherly advice, "You start off life naked, cold, hungry, and broke. Then it gets worse..."

On Valentine's Day - the saint's mortal remains are entombed and venerated at Whitefriar Street Church in Dublin - Nixon remained optimistic after discovering that Broadband over Power Line transmissions were proven to be breaking in on the airwaves used by radio hams in Texas, forcing the offending companies to turn off the signal and remove their equipment. "With proof applied to the Law this thing WILL get shut down. It's simply affecting far more people this time... a light at the end of the tunnel," said Nixon. Meanwhile, O'Cruadhlaoich admitted the crossed communications with Nixon's submission to the committee, noting, "I have checked this and have been informed that an acknowledgement, the same as to everybody else, was issued to Mr Nixon."

Two days later Nixon received two letters. The first was a legal document from Chiavetta's office stating that he had 20 days to respond with objections to the Administrative Law Judge. The letter was dated 23 Dec. 2011. The letter had arrived well past the Public Utilities Commission's deadline.

The second letter from Chiavetta informed Nixon that his "various complaints" had been assigned to the same Administrative Law Judge and assigned a single formal complaint number. "I'm just letting them run with it," said Nixon, informing them that what they are doing does not adhere to legal procedure." The promise of "letting them run with it" was short lived. Four days later he told Chiavetta, "It is considered that my formal complaints to the PA PUC have been illegally processed and administered. Judicial decisions and actions have been carried out in camera without my knowledge and/or notification. Exhibit submissions, numbering in their hundreds, have not been applied to their respective formal complaints or taken into consideration."

Armed with verification of duplicity on the part of the Pennsylvania PUC, Nixon then turned his attention to assembling a citizen panel of people who were following the advance of the technology. In a widely distributed e-mail, Nixon urged contacts that "It may be advantageous to our mutual problem if, instead of just posting complaints, you get your complaints into an on-going legal process. Write to the office of the PA PUC Secretary – The top legal person in this government agency – and explain the nature of your problem. Sounds like a diesel engine, can't find where it's coming from, active 24/7, making you ill, etc., and so forth.

"Let's give 'em some ants in their pants …….. Internationally. Let 'them' know that there are many of us and that we are slowly getting organized," he said. Nixon reflected on a comment on the Nutrimedical Report, an internet radio program hosted by Dr. Bill Deagle who also made a submission to the Irish committee, that judges are "'trashing' the very laws they are paid to enforce" and the difficulty of addressing the issue of electromagnetic radiation through the Federal court system. "So, at the end of the day, it comes back to Constitutional Rights; and thank God that those old geezers thought it through like they did; and long drawn-out court battles in Washington, D.C. which no individual can afford to do unless backed by a business or the ACLU (who won't touch this 'thing' BTW. I asked them; actually, "baited them" is a more descriptive term – Told 'em it was bigger than McCarthyism," explained Nixon.

Undeterred, Nixon prepared to take the issue to the Federal government and prepared a logical progression of how EMFs are affecting the planet:

- When one group of people attack and injure another group of people or individual it is known as Actual Bodily Harm.

- When one group of people attack and injure another group of people or individual and draw blood it is known as Grievous Bodily Harm.

- When one group of people attack and kill another group of people or individual it is known as Murder.

- When one group of people repeatedly attack and injure another group of people with a known destructive weapon it is known as Warfare.

- When one group of people attack and injure another group of people with a known destructive weapon surreptitiously and covertly it is known as Terrorism.

- When one group of people attack, injure and kill a selective group of people indigenous to the population with a known destructive weapon it is known as Genocide.

- When one group of people installs and energizes equipment that has known, widespread, destructive capabilities amongst and targeting a section of a population; deploying a Weapon of Mass Destruction; it is known as Annihilation.

With the above logical outline of circumstances as he viewed it, Nixon set about filing complaints to the Pennsylvania Attorney General, Senator Jim Crawley, president of the Pennsylvania Senate with responsibility for the Public Utilities Commission and the office of the U.S Attorney General.

Simultaneously, Nixon showed he was not yet finished with Secretary Chiavetta at the Pennsylvania Public Utilities Commission. In addition to demanding a formal enquiry into a “blatant disregard of the law as applicable to formal complaints”, Nixon enclosed documentation about the recently-labelled fatal medical condition - SADs. “Enclosed is a document entitled ‘Sudden Adult Death Syndrome (SADS) and BPL-PLC-induced Reactance Correlation’... International correlation research is incomplete as of the date of this communication. However, as there is a 0.8546 probability of this correlation it is considered that an investigation is conducted immediately. SADS Associations around the world have been notified...”

SADS is a Western label - not yet available even at Wikipedia - which is akin to a Far East condition called SUDS or Sudden Unknown Death Syndrome which was first noted in 1977 among Laotian refugees to the United States. It surfaced again in Singapore where otherwise healthy men died of unexplained causes between 1982 and 1990. In the West, SADS has surfaced among healthy male athletes. A near escape is English footballer Fabrice Muamba who suffered a heart attack during a televised match between his team, Bolton Wanderers, and Tottenham Hotspur on St. Patrick’s Day, 17 March, 2012. In Ireland, an

incubation centre for microwave research, the Irish Government has earned a reported €450 million for leasing frequencies to global corporations to test their technologies through a program called *Test & Trial*, estimates vary on the number of young athletes dying on playing fields.

Touting its free heart screening service, Irish insurer Laya Healthcare, notes, "Statistics show that two people are lost to Sudden Adult Death Syndrome (SADS) every week." Consultant Joe Galvin, Cardiologist / Electrophysiologist attached to the Mater and Connolly Hospitals in Dublin, has been identified as the principle investigator in what is called the sudden cardiac death project. Galvin has not responded to attempts to contact him. Several years ago Galvin suggested that at least three people a week were dying from SADS. He is responsible for a SADS register, recording when and where people have died.

Galvin's research looks at diseases suffered by patients under two categories: Cardiomyopathies, physical conditions of the heart muscle; and Channelopathies, inherited diseases that control the heart cell electrical impulses. His research is in line with official government guidelines for people who complain of "Electromagnetic Sensitivity." In stark contrast to Sweden where ES is a recognized disability, doctors in Ireland are instructed to prescribe medication or refer patients for psychological assessment.

In Ireland, as elsewhere, responsibility for SADS deaths rests with the dead person as a victim of a pre-existing medical condition and the public accepts SADS as an event because it has a label. As parents are left to pick up the pieces of their shattered lives following the deaths of their children, there is no one to blame, only fate.

And things are even worse in Australia where BPL is ubiquitous. SADS Australia was incorporated in 2010 and estimates that every 16.8 hours an Australian child dies of SADS.

The website *Natural News* reported the deaths of 10,000 cattle in Viet Nam. The Vietnamese cattle deaths follow a trail of other mysterious animal deaths that all began occurring right around the start of 2011. Many of those deaths remain unexplained, while others have been attributed to strange causes like winter storms and even drunkenness. Yet few, if any, of these death cases have been conclusively explained with actual scientific evidence.

In Ireland a farmer found five cattle dead in a field in Co. Wexford but did not report it because he was afraid he would be unable to sell his beef.

By the end of February 2012 one of the first reports of mass deaths of farm animals was reported by the Daily Telegraph in the U.K. which blamed the newly discovered Smallenberg virus. The newspaper reported that in Continental

Europe, some farms had lost as many as 50 percent of their flocks, noting scientists could neither identify the source nor cause of the virus. But it was, they were certain, a virus...

In the U.K. another mystery surfaced when radio enthusiasts claimed they could have their own “Bermuda Triangle” in the Cambridgeshire village of Waterbeach. Wojciech Piotrowski, a scientist from Willingham, told the Cambridgeshire News: “A strong electrical interference source was radiating radio signals in one of the ultra high frequency bands at the southern end of the Green.” The military, the only known source of the frequency, denied any knowledge of the matter. The Qualcomm company has its research and development facility in Cambridge where they are working on LTE technology. Long Term Evolution (LTE) is a radio platform technology that will allow operators to achieve even higher peak throughputs than HSPA+ in higher spectrum bandwidth.

Nixon remained less than optimistic about a pending lawsuit against the Federal Communications Commission against microwave technology for the sound-noise angle. The sound appeared to be spreading with a woman in Idaho complaining to him, “Could not sleep last night, It’s like a freight train running through the house. I think it’s in the entire wiring.”

Also by mid-March a report in the Cork Examiner about the “Hum” in the townland of Beaufort in Co. Kerry had surfaced. When provided with evidence, the paper did not follow up. Nixon’s calculations indicated that the sounds are the results of subharmonics that are mathematical progressions of Broadband over Power Line pulse frequencies. “Everything below 50Hz is a BPL induced subharmonic - Look at similarities in the frequencies. Strength is 40-96dB - Gives a power of between 200 and 40,000 watts. Same all over the world because ‘they’ are using the same equipment and software.” He later added that waves “only occur in <48 Hz and only us old fogeys can hear in that range. Hence we all have tinnitus.”

The so-called “Hum” experienced around the world was first reported in Bristol, Wales in the 1970’s and has entered the category of urban myth.

“The Hum” is a generic name for a series of phenomena involving a persistent and invasive low-frequency humming noise not audible to all people. Hums have been reported around and occasionally a source has been located. A Hum on the Big Island of Hawaii, typically related to volcanic action, is heard in locations dozens of miles apart. The Hum is most often described as sounding somewhat like a distant idling diesel engine. Typically, the Hum is difficult to detect with microphones, and its source and nature are hard to localize.

The Hum is sometimes prefixed with the name of the place where the problem has been particularly publicized: e.g., the "Bristol Hum", the "Taos Hum", or the

"Bondi Hum", The Largs Hum overlooking the Firth of Clyde in Scotland, the Kokomo, Indiana Hum and the most egregious and widely experienced - the Windsor Hum - just over the U.S.-Canadian border - which has prompted disagreement over who is responsible.

In a 1998 episode of *The X-Files* titled "Drive", Agent Mulder speculates that extremely low frequency (ELF) radio waves "may be behind the so-called Taos Hum". He may not have been far off the mark if Nixon's mathematics are correct.

According to Nixon, the problem is getting a signal down the power lines without signal loss. Loss is caused by the interference / equipment on the power lines themselves – Spikes from appliances turning on/off, harmonics from industrial equipment, transformer inductance, capacitors to "smooth" the phase imbalance, etc. This is the reason why the power line communications never got above 300baud in 40 or more years.

"If you can make a persistent signal that'll go through anything and everything you can send a signal down as fast as you like, right?" questioned Nixon. "This signal would be big (power-wise) and wide (as in not a single line)" and would require a larger supply of electricity which could be one reason why there is world-wide concern about electrical supplies.

Researchers discovered that it was possible to send a multi-frequency waveform down the power lines years ago – but were unable do it fast enough. "Up pops DC-generated digital communication generated by a very, very fast computer," explained Nixon. "This computer and its associated electronics can output a string of frequencies (which are just numbers so far as the computer is concerned) in a series of pulses (dots) and then inject the pulses into the power lines.

The signal "string" is made up of 16 (hexadecimal 10) separate frequencies in the waveform shape in the waveform graph plot. Being that there are 2048 "dot" pulses this would give a total signal "string" count of 128 one after the other – Very "thick" (wide) signal waveform. Adding just one more bit, 4096 "dots", and there are 256 signal "strings".

Very, very persistent signal. Even if half of the signal is lost, -3dB point, there would still be sufficient "dots" left to reassemble the original waveform at the demodulator end.

"Sending each waveform in the real-time domain at singly different angular modulation, 15, 30, 45, 60, etc. out of phase to the last one and you can digitally encode the signals. 15 degrees out of phase = 00, 30 = 10, 45 = 01, 60 = 11, etc. You can set up a whole slew of signal 'types' doing this, right up to video streams – if you can get it to go fast enough... That's the key – speed," said Nixon.

But what happens when these frequencies are introduced into the power lines? The signal pulses “dots” themselves are interharmonics. An interharmonic will generate a harmonic next to it. Both collide, cancel out the difference in the frequencies except the difference in their respective frequencies. This difference is a subharmonic and because all of the “dot” frequencies are multiples of the original frequency, 11.719Hz, there are 16 subharmonics that are all the same. 129 or 256 subharmonics overlaid on top of one another at exactly the same time at 16 different low frequencies.

There’s an LF subharmonic at 11.719, 17.578, 23.438, 29.297, 35.156, 40.016, and 46.875Hz at 60Hz mains frequency, at 50Hz it’s just an integer division calculation of these frequencies. It is the 11.719 subharmonic that is most frequently present, mathematically in theory, when the Hum manifests.

The Sunday Times addressed the issue of “The Beaufort Hum”, classifying it as a natural occurrence. Nixon was not so sure offering his findings to external scientific scrutiny. and as for the “WIndsor Hum” and disagreement between the U.S. and Canada, Nixon charted the provenance of the sound himself. "It is not ‘coming from across the border’, but, in the case of Windsor, the control signal is originating at grid reference 42.2801284790049. -83.0930023193359,” he said. “That grid ref. puts 'em right on the doorstep of the Ontario Hydro building.”

In The X-Files Agent Mulder was rarely wrong. Nixon seems to have gone one better. “The production of these harmonics and the reactance produced by the capacitor banks at these energy levels are both illegal. They are hundreds of times over the top of the max stipulated by law,” he said menacingly, “Now I’m going to kick their asses with the law.”

As for experiencing “The Hum”, disagreement persists over the term acoustic. Are the parts of the ear involved and the signal carried to the brain? Or, more directly, does the frequency cause vibration of the skull? As with other factors involving microwaves, argument serves to cloud the issue rather than clarify it. Semiotics and semantics confuse rather than elucidate.

In May the Detroit New posted a new article on the U.S.-Canadian border: “‘The Hum’ driving Canada looney Incident pits Windsor residents against U.S. regulators”. (The headline remains but the text is unavailable.)

In 2008 the 11th biennial European Particle Accelerator Conference produced a paper by C-Y Liu, Y-C Chen, H-M Shih, NSRRC, Hsinchu 30077, Taiwan, R.O.C called “Performance Evaluation of the switching mode AC power Supply” which included two waveforms of the Danfysik 8500-859 dipole AC power source for booster ring applications. “These wave forms,” said Nixon, “are exactly the waveforms that appear in part of the Spectrum and are component parts of the “Hum”. I can pull up a frequency tuner anywhere where BPL is installed and

operational and get these waveforms. What both of these waveforms actually produce is a 10Hz subharmonic, I can pick that up too with ease.

"This would not playback on anything other than a purpose-built subwoofer speaker. It is so low frequency that turning up the volume in an attempt to make it audible would burn out the electronics; particularly capacitors. In actual fact what this would sound like if you were to play it back would be a capacitor bubbling (a tech term – actually boiling) and just about to explode.

"So, it appears that another block has fallen into place."

Meanwhile, U.S. President Barak Obama signed a bill extending unemployment benefits passed by Congress. Attached to the law was a rider under Section 332 (c)(7) of the Telecommunications Act stating that local government "many not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station"

In America they took the brakes off by taking responsibility for zoning issues away from the community. In Europe the policy of active denial remains in place except in the town of Olvera, Cadiz where the city council unanimously agreed to declare the town an "Electromagnetic Pollution-Free Municipality". When it's cloudy this hum crap actually reflects off of the clouds, or at least is trapped between the clouds and the ground (As in - It's always warmer when it's cloudy because the atmospheric heat cannot dissipate as easily). And that's another known (esp. by radio hams) frequency 'thing' - Ground reflection - The signal bouncing off of the ground.

"Brings me back to my statement of a while back. Why is it that only I have pinned this 'thing' down? OK, so those on the payroll are not going to say what 'they' know But there are millions of smarter people than me out there. Why Me? I don't want to do this junk, moreover I don't want to be affected by it either.

"I simply do not get why nobody, but nobody, has correlated any of the global events to a single causation. We both know what that is," Nixon said. As added evidence to his theory Nixon pointed to an explosion of white light during a Fox News traffic segment by Andrea Robinson in Phoenix, Arizona. "This is a typical electrical blowout at night, the camera was a light intensifying type so it looks 'whiter,'" he explained.

The explosion of light was caused, he claimed, by an electrical decoupler as power companies tune the BPL signal during off-peak hours. According to Nixon, "Owing to the maximum usage of electrical power during hours when populations are awake, thus causing spikes and browns, power companies tend to "tune" BPL couplers/decouplers data modulation/demodulation during off-peak hours.

Decouplers are much smaller than couplers due to the fact that they are mounted on lower-voltage power lines. Both share the same design characteristics, that is, both are resistance/capacitance (RC) devices. They are, basically, band-pass filters.

"The function that these RC devices perform leads to energy being converted to heat in their passive components," said Nixon. "Although the insulators surrounding the tube in which the RC devices are designed also act as cooling elements there is often a sudden surge in temperature. This is due to electrical power being at a peak during off-peak usage hours and these RC devices not being able to contain (hold back) the power levels present in the cables. The RC elements simply melt, disintegrate, and are blown out of the top of their mounting tube, the body of the coupler/decoupler. There is little external damage to the coupler/decoupler body.

"Investigations of these phenomena usually give explanations that mislead from the actual cause. For instance, recently the town of Clintonville, Wisconsin experienced explosions and flashes mainly at night over an approximately two week period. The USGS gave the reason for the explosive noises as a 1.5 magnitude earthquake. No damage to buildings occurred during this two-week "earthquake" and no reports emerged of antipode tremors."

The manufacturer of the equipment, claimed Nixon, was Amperion, with patents pending in China. In the Wisconsin event, the power company has operational Access BPL. BPL Wireless Access is operational across the country from the Boston Public Library to the public library in Berkeley, California and in Canada as well. Regarding the Flare in Phoenix, Nixon added, "Compare with the street lamp color/brightness. One of these couplers blowing out would only take 0.2 of a second and would leave virtually no garbage as it would all obliterate in instantaneous white heat. I'm on target, right on the button," he said.

The San Francisco-based IT Law Wiki explains, "Access BPL systems can be used to provide high-speed Internet access and other broadband services to homes as well as providing electric utility companies with a means to more effectively manage their electric power distribution operations. Given that Access BPL can be made available in conjunction with the delivery of electric power, it may provide an effective means for "last mile" delivery of broadband services and may offer a competitive alternative to digital subscriber line (DSL), cable modem services and other high-speed Internet technologies."

Nixon also remained on target with Secretary Chiavetta and the Pennsylvania PUC, forwarding further exhibits in support of his claim that illegal dangerous equipment had been installed on his street in Pittsburg. "This equipment is experimental," he said. It operates at 2, 5, and 30 Ghz. By its inventor's own admission it emits at least 25 decibels of energy at the frequencies per pole under normal operating conditions... This equipment's emissions are a danger to

the public; this equipment should not be deployed in a highly populated area. The E-Line equipment should be de-energized and removed immediately."

Meanwhile Nixon cracked the elusive problem of BPL dangers and found the answer in a frequency database of the "Hum". " As outlined in the new document, it appears to be based on 11.719Hz and using Fast-Fourier Transform techniques," said Nixon. Included in the solution was a study called "Anger Style, Psychopathy, and Regional Brain Activity" by Jennifer Stewart , et al, at the Department of Psychology, University of Illinois, Champaign-Urbana. The Stewart paper is one of many which show a direct relationship between emotional states and electromagnetic radiation. It is one of those theories evolving from the study of Rock n' Roll and how the closer the beat of a piece of music to the beat of the human heart, the greater the odds the song would become a "hit" and increase revenue.

"Nowadays tech-savvy teenage pranksters know that if they use a readily-available freeware signal generator (i.e. SigJenny), playing a low-frequency (LF) sine wave centered on 17Hz through a sub-woofer, they can 'trick' their friends and parents into feeling frightened and 'freaked out'. Dependent on the volume of the speaker, these teens observe dramatic increases in people's reactions even though virtually no one can actually the 'noise'. With Smart Grid BPL-generated LF, Power Companies are 'freaking out' entire populations," said Nixon even before stumbling on the 11.719Hz frequency which is subtler still.

The emotional implications of "The Hum" was further explained by German writer-researched Dieter Broers who wrote in late April, "Some years ago I was part of a research team that measured the brain waves of test subjects at regular intervals via EEG. We found that specific electromagnetic fields sporadically acted on the test subjects' brains, without their being aware of this phenomenon. One of our most striking findings was that the test subjects' brain waves could be altered via exposure of the brain to electromagnetic waves; and as if this weren't astonishing enough, we also found that we could even control the test subjects' brain waves using these fields. For example, the EEG frequency of a test subject with a predominant baseline frequency of 10 hertz could be increased to 12 hertz *each time* we exposed the subject to an exogenous 10 hertz electromagnetic field that was then increased to 12 hertz. We concluded from this that endogenous rhythms are governed by their exogenous counterparts."

Broers' comment is important because of his affirmation that there is, indeed, interaction between human cells and electromagnetic fields. "These findings also opened my eyes to processes that were of fundamental importance for my own research in that I now had incontrovertible, empirical proof that electromagnetic fields have a direct impact on brain activity," he said.

The evidence may be found in the burgeoning statistics on autism. Utah has the highest incidence of Autism in the United States where 1 in 32 boys and their

parents are suffering. A study at Stanford University of 192 pairs of twins concluded that genetics only accounts for 38 percent of the risk of autism with environmental factors accounting for 62 percent. In Ireland plans were afoot by Irish Autism Action to support the new Autism Centre of Excellence. The number of people in Ireland with a diagnosis of Autism would fill Dublin's Aviva Stadium - 51,700, seated, 95,895 for a concert.

While largely unaware of the development by stealth of Broadband over Power Line technology, Physicians for the Environment in Switzerland joined a growing world-wide chorus for implementation of the much vaunted and widely-ignored *Precautionary Principle* and released a press release stating, ""From the medical point of view, it is urgent to apply the precautionary principle for mobile telephony, wifi, power lines, etc." states Dr. Peter Kälin, President of Physicians for the Environment. The Austrian Medical Chamber has moreover just formulated the same requirement in regard to smart meters. In a communication dated 16 March 2012 to the Federal Council of the Federal Assembly, Physicians for the Environment requested to divide the value limits by 10. Dr. Yvonne Gilli, National Councillor, has repeated the demands of the MfE in requesting the Federal Council, if it has to protect the population, to apply the precautionary principle and to lower limit values."

By the beginning of April, enquiries and responses regarding BPL came to a halt. The Irish government's investigation was at a stalemate, a media blackout on the topic held firm. The apparent lull in confrontation gave Nixon the opportunity to pursue one of the new avenues the microwave industry was turning to: the creation of smaller cells of macro-micro-pico masts to circumvent the power and dangers - and obvious physical presence - represented by large masts populated by multiple operators broadcasting numerous frequencies. The danger from these configurations is that - not unlike the Smart Grid with a meter on every house - the macro-micro-pico scenario brings the signal down to street level with masts generally placed at the same level as the upper floor of a two-story house. Nixon found research from a French team working for the Alcatel-Lucent Bell Lab and Supelec in Paris entitled, "Optimizing Cell Sizes in Pico-cell networks". "Apparently, with Micro (Mi) and Pico (P) cell network structure it's not so much about saturating an area with Mi & P modules as it's about where you put them. For instance, a 100 percent "saturation" can be achieved with 75 percent of the modules if you place them in the optimal locations," reasoned Nixon.

The announcement by British Gas that the 400,000 already installed were not "smart enough" was reported by the Daily Telegraph. The paper noted that Centrica, parent company for British Gas, had been criticized for increased energy prices - a complaint long held by those opposed to Smart Meters on both sides of the Atlantic. "We're in the 'wait' stage right now," said Nixon. "People are seeing, for the first time, that here is a very powerful stance and case. Every one of the lawsuits over here right now is on shaky ground, thin ice. Perhaps when the assimilation part is done and people have pieced it all together pragmatically

there will be a few in my corner. I don't care one way or the other, I either stop this 'thing' or I die, so I have no choice. And once, just once, I would like something to fight. And then to be left alone."

His sentiments would prove prophetic.

Back home in the U.K. Victor's mother, Frances Ann Hyden, 84, reported that an electrical substation exploded in a Nottingham suburb and more than 200 people were evacuated as a second explosion was expected but didn't happen. People were allowed home mid-morning the next day. This is the fifth to go up around Nottingham. Police statements blame them on copper thieves. Nixon was suspicious of police findings, "There are no large amounts of copper on a substation, only the transformer winding and that's boxed in and weighs 2-plus tons – A small transformer. Her friend at the site verified it. No other reporting was done on it."

Five weeks later, Mrs. Hyden informed her son that Fabrice Muamba had partially recovered. "My Mom told me this morning that now the black footballer is awake. 'They' are saying that it wasn't a heart problem - Specifically NOT ventricular fibrillation - Amazing - Wonder how much longer 'they' are going to get away with this," said Nixon.

Yet another controversy was percolating - this time in Baltimore where preparations were being made for a hearing with the Public Utilities Commission there on the issue of Smart Meters. With four days to the deadline for written submissions, Nixon, as consultant claimed that people were fighting Smart Meters when they should focus on the issue of Broadband over Power Lines. "Everybody else is going after Smart Meters so we're going to as well - The perfect Red Herring," he said.

Meanwhile complaints from India where BPL Global operates were registered regarding mobile phone reception and billing. Complaints from Australia related to exorbitant electricity prices and slow television and internet services. "I don't get two things," said Nixon, "How was it that the ARRL was able to stop it the first time around because of ham radio interference," he added. The ARRL is the American Radio Relay League, the national association for amateur radio hams around the U.S. "This was in 2003-4 when 'they' tried to install it at 8-20MHz. The ARRL actually got 'them' to remove the equipment. How is it that the ARRL in 2005 signed off on it at 40MHz with a 'notching' agreement that never happened - And the ARRL stayed quiet," asked Nixon.

"This BPL 'thing' is not selective. It hits everyone. It hits regardless of anything (race, education, rich/poor, etc.). mainly it hits the 55-65 year old population. Well, there are some pretty smart and well-off people in that age group. For instance, major political figures are in that age group. 'The Donald' has even

complained about it. That the ancillary equipment causes major health effects is a given. Heck, it kills people. Why is this being overlooked? Why is it all being overlooked?

“I just don't get it,” he said, pointing to extremely sinister motivations far beyond simple corporate greed.

World-wide, the stifling media embargo on discussion of the issue continued when an Irish radio station owned by digital mogul, Denis O’Brien, invited electrosensitive farmer John Ryan from Dangan, Co. Tipperary to discuss his personal battle to have a mast removed from his land. Staffers for O’Brien, media mogul, globalist billionaire and second richest non-taxpayer in Ireland, pulled the plug on a balanced radio discussion on the safety of cell phones. Production staff contacted Ryan and then failed to air the interview on drive time’s *The Last Word* with Matt Cooper. Instead, Prof. Anthony Swerdlow of The Institute of Cancer Research, Royal Cancer Hospital, London, an unabashed apologist for the industry appeared as a bonafide scientist comforting parents that there is no real evidence that cell phone use is harmful.

One of the few publications to grasp the issue of microwave technology is the *Daily Mail*, part of Lord Rothermere’s empire, currently edited by Paul Dacre. On 24 April it headlined, “The Biggest experiment of our species’: With five billion mobile users in the world, conference calls for research into potential brain cancer risks”. The piece noted the 50 percent increase in brain tumours since 1999 and quoted former World Health Organization expert, Dr. Annie Sasco, of the University of Bordeaux, who said, "We now live in an electro-smog and people are exposed to wireless devices that we have shown in the lab to have a biological impact. It is totally unethical that experimental studies are not being done very fast, in big numbers, by independently funded scientists. The industry is just doing their job, I am more preoccupied with the so-called independent scientists and institutions saying there is no problem.'

“What can I say,” said Nixon, “About frickin' time - now here comes 4G/LTE and Pico/Femto cells.” 4G refers to the fourth generation of communications and LTE (Long Term Evolution). 4G communications are faster while LTE, while also fast has the potential for wireless mobile web access, IP telephony, gaming services, high-definition mobile TV, video conferencing and 3D television. In short, the wireless industry has an open door for more permutations with greater opportunity for profit. Simultaneously, word from Jorn Gutbier of Diagnose-Funk (Diagnostic Radio) in Germany revealed that citizens there had awakened: protests in 158 townships with 50 active protest groups in 50 rural districts; 81 municipalities that rejected mast sites recommended by the government; and city councils which called for a moratorium on the roll-out of Tetra.

The English-speaking public is less aware. “This is the crux of ‘their’ (industry’s) argument. ‘They’ can show a (un-technically minded and/or trained) judge in a

court room that the equipment used actually at the sites where it is intended to be installed is harmless," claimed Nixon. "Even those who argue the case for the installer/operator are convinced by their employers that it is harmless, and therefore forward a convincing argument. What 'they' cannot explain, and take great pains to divert attention from, is the fact that the networking schema, the Level 2 equipment, the *SCADA* System, is deadly to living tissue because of the extremely high levels of energy it/they emit(s)."

The courts in Italy have been less gullible. Last year the Vatican was found responsible for illness in the town of Cesano, 25 miles north of Rome caused by 60 communications masts. The Vatican, in turn, blamed the Italian Navy. Another case has surfaces in Ostia Sud, 25 miles southwest of Rome where 30 people are suffering leukemia.

Of particular concern to Nixon was the evolving situation in Idaho. "It's all deregulated over there as normal, but get a load of this: IDACORP owns IDACOMM and Idaho Power and the main Internet service provider (ISP), Velocitus. All of the small electrical supply companies up in the north are owned by Idaho Power - there's a whole slew of 'em. It overspills into the states of Washington and Montana." Idaho has a knowledge-sharing arrangement with Australia under the auspices of the U.S. government to protect critical infrastructure where privacy is subordinate to availability.

According to Nixon Idaho offers a worst-case scenario where one company owns the whole system, electricity power delivery and communications. A monopoly. "Here's the best (worst) part," he said, "IDACORP is partnered with Amperion to supply BPL Internet services *and* TWAC AMI – Smart Grid and 'smart' digital metering. In Q4 of 2009 Idaho Power requested permission from IPUC to install Smart Grid and were given the go ahead. In Q2 of 2010 everybody starts hearing a diesel engine type noise and getting sick from emissions – But obviously didn't and don't know what the Hell was/is going on. Because of the minimal population density up there it's all hybrid wireless/wired and it's hitting one in 3 people, including children unfortunately. What can I say? I'm kinda devastated that I've dis/uncovered this information. This is a nightmare!"

While Nixon ruminated over the problems suffered by the people of Idaho, a rumor swept the internet that microwaves could cause deterioration in the built environment and weaponized microwaves could prompt the collapse of buildings such as the as the Twin
Towers of World Trade Center and Building Seven. Speculation about the destruction of the built environment emanates from the work of Dr. Judy Wood, Ph.D. from Virginia Tech and her 500-page book, "Where did the towers go?" in which she gives ample evidence of a scientific effect responsible for, what she calls, the "dustification" of the buildings.

*SCADA – Supervisory, Control, And Data Acquisition.

"Someone has floated the idea that building materials are being eroded, worn away, ground down, by low frequency emissions of BPL." observed Nixon. "The originator(s) have not exactly put a frequency or "block" of frequencies on it as yet, they simply make the statement. It is possible that concrete, mortar, brick, rock, etc. used in building is being eroded by LF. This is simply from the fact that all are made of the same basic stuff – Silicon. Silicon's natural frequency of oscillation – the frequency that the atoms move – is 56Hz."

Here Nixon returned to his original theory regarding reactance. "In both 50 and 60Hz electricity, right now and due to BPL, there is reactance. The top end of this reactance at 50 and the low of 60Hz reactance is, more or less, spot on 56Hz. The reactance emissions are electrons (there are other emissions as we know) in a high-energy state. Entering the atoms of building materials excites the silicon atoms causing them to move more rapidly within the mass of the materials themselves – vibrating more vigorously. Vibrating itself apart, crumbling."

This vibration of electrons closely matches the theory of Dr. Gerd Oberfeld, of the Salzberg (Austria) Department of Health, who identifies unattached electrons as free radicals which cause cancer in humans.

"Vibration Engineering is an engineering discipline in and of itself," said Nixon. "Just like Fluid Dynamics is for instance. Building material degradation could very well, and in all probability is, occurring. But it's going to be like every other problem that BPL is culprit. 'They' will plead ignorance; it won't get followed up on, and 'We don't know' will be the accepted idiom."

The global focus on Smart Meters shifted to Baltimore, Maryland where Nixon was invited to consult on behalf of numerous groups across the state before the Maryland Public Services Commission in May. Nixon's agreement to help Rebecca Hanna-Diener, of Randallstown, and her coalition meant he had to appear in public and shed his anonymity. The decision revealed his basic motivations and, while he would not admit it, his idealism. "Chance to tip the scale minutely, or more smoke screening by "them" and a waste of time and effort? Puts a target on my back, but what the Hell. I don't care. These folks need all the help they can get," he observed.

The date, May 8, proved significant. Nixon would not recognize its significance. In the Judeo-Christian West, May 8 is the feast day of St. Michael, the Archangel, and the Bible notes, "At that time shall Michael rise up, the great prince who protects the children of thy people." (Dan. 12:1). To Jews Michael is the messenger of God's kindness. On May 8 Nixon received corroboration of all his research. Hundreds of miles away from his offices in Ottawa, Ontario, Dr. Andrew Michrowski, of the Planetary Association for Clean Energy, Inc., sent the following message to Hanna-Diener: "Herewith excerpts of measurements for a another

case where the ‘broadband’ + other frequencies introduced by technologies such as SMART meters affect transmission lines... on a Hydro Quebec HV transmission line adjacent to an organic farm in the Eastern Townships. These technically

Nixon’s excape to Idaho proved short. The above photo was taken three months after the photo with his prized Chevrolet (photo above). His physical deterioration had been rapid.

adverse frequencies are affecting standard measurements of magnetic and electric fields as well of microwaves. They result in effects on living systems on people, animals, plant life and soil for more than 100 metres away from the axis of the line. So your inclusion of Victor Nixon's documentation for the Maryland Public Service Commission is complementary to our measurements, which have been presented and accepted as evidence in a Quebec administrative tribunal last year.”

Call it fate. Call it Divine intervention. Nixon had received the kind of affirmation that scientists have been largely unable to do. A source unknown to Nixon produced an unsolicited body of research which roughly corroborated Nixon’s years of looking for an answer. For the first time in years, Nixon was jubilant. “Pleased?” he said “I've got tears in my eyes. All that work suddenly one hundred percent corroborated. This is awesome!!”

In addition to the work of Nixon and Michrowski, Hanna-Diener also submitted articles by veteran reporter Blake Levitt and Chellis Glendinning writing for Counterpunch, Dr. David Carpenter, director of the Institute for Health and the Environment at the University of Albany School of Public Health, pioneering researcher Dr. Neill Cherry, Curtis Bennett, of the Thermografix Consulting

Corporation, and the Bio-Initiative Report which includes the work of Prof. Olle Johansson, of the Karolinska Institute, Stockholm.

Thus began two weeks of preparation for the May 24 PSC hearing in Baltimore and a search for a killer of a last sentence to his five-minute statement. Meanwhile he continued correspondence with Sylvesteren in Denmark and began investigating problems in Australia and Tazmania as well as notifying the Formal Inquiry team in Co. Durham in England.

The day of the hearing, a large group gathered in the hearing room of the building in downtown Baltimore to witness an astounding five-minute performance. “The most sinister part of this entire issue is that electrical utilities and government agencies alike deny the existence of the BPL communications signal on the electrical power transmission and distribution grid,” claimed Nixon to a hushed crowd.

“There is not one of you here today; you, the people that are making the request and the Maryland PSD who are considering the request; that has sufficient knowledge of this technology to make the statements that are included in the BGE Exhibits or to substantiate them. You are not only out of your depth with this BPL technology; you are out of your league.

Smartly dressed with his SAS pin, Nixon was on a roll. Armed with corroboration of his own research and timing and bravado, he told the commissioners judging BGE’s exhibits he could supply their customers with the information on how to reset their meters back to zero permanently. To the gallery, according to his script, he said, “Within a year there will be a switcheroo; BGE will inform you that they are replacing their hated digital meters with an indoor replacement for which you will pay $1300.” To the chair he said, “If you gave me 48 hours’ notice and then 20 minutes with one of your wireless collectors I could shut your Smart Grid down. This is not about anything ‘smart’; this entire issue is a dumb move.”

In a scene worthy of Hollywood, Nixon pointed to the folly of the entire grid as if his listeners were workmen on the Tower of Babylon. “These emissions are not selective; they do not hit me and millions of others like me and miss you. By continuing with the installation of BPL, across the board, you are also surely endangering yourselves and your families,” he said, appealing to their own self-interests.

“There are six (6) major emissions issues; eight (8) major entire population and eco-system detrimental and destructive reactions that will result in enormous consequences.

“Smart Grid, Access BPL, and B-PLC may have their up-side. They may benefit the few in major corporations around the globe that are and continue to profit enormously from their installation and operation for as long as it is allowed to

continue. You can ignore the warnings, you can ignore the warning signs, but with this new and substantiated research you cannot escape the oncoming tide of accountability."

Hannah Cho, reporting for the *Baltimore Sun* newspaper carefully explained an interim decision which reflected the Commission's disarray. Instead of a rollout of Smart Meters, customers of three utility companies, Baltimore Gas and Electric, Pepco and Delmarva - all in various stage of deploying Smart Meters - the Commission offered the option for customers to opt out and those who already have the meters installed can request in writing to have the meters removed and replaced with old fashioned analogue meters... for the time being.

Along with Diener and Nixon, Jonathan Libber, 59, president of Maryland Smart Meter Awareness, a citizens group opposed to Smart Meters said afterward, "They are a bad idea. There has been no demonstrated savings for the regulated ratepayer. That's the first problem. The second problem is that they're potentially very dangerous."

The drama continued outside the hearing room. While he was speaking Victor noticed several men who did not fit. His military training and gut instinct told him to beware. When Nixon went to the mens' room, one of the men he had identified as industry plants followed him. Nixon pinned him to the wall, grabbed him by the neck and the genitals and told him,"I don't like you and if I ever come across you again, I'll kill you."

Days after the successful Baltimore outcome, the expectations of people around the world, experts and activists alike - including Nixon, were dashed by a devious Irish parliament. A full three months after their deadline, a sub-committee of the Oireachtas Joint Committee headed by TD Ciaran Lynch, of Cork, agreed *in camera*, that the matter of microwaves / EMFs belonged more properly with the Oireachtas Joint Committee on Health. The Minister for the Environment, Phil Hogan, who had been scheduled to be present, failed to appear and the Taoiseach, Enda Kenny, met with the heads of governments from the EU to discuss - not the economy as might be expected during the current exceptional economic turmoil - but "digital" developments.

It was not until the Joint Oireachtas Committee was challenged that Eugene O'Cruadhlaoich responded on behalf of the members. Rather than admit a deal had been done behind closed doors, O'Cruadhlaoich explained that that submissions had been forwarded to the Oireachtas Joint Committee on Health and Children.

Peremptorily, he added, "Regarding your request for information on 'the membership of the sub-Committee' and your request as to who made the suggestion and if there is an official vote' the Committee has instructed me to inform you that these matters which were conducted in Private Session."

The shutters had been pulled on the issue of electromagnetic radiation in the Irish environment by those elected by the people. This raises questions of propriety, the nature of Democracy and ultimately, the traditional Cui Bono? - who benefits. Beale would have been apoplectic.

While the Irish dithered with indifference, the City Fathers of Ojai became the first government in Southern California to adopt an ordinance officially banning Smart Meters within its jurisdiction and the Dutch government considered buying out those living too close to power lines. The Telegraph and EMF Consultancy both reported that the Dutch Minister for Economic Affairs, Maxime Verhagen, will set a precedent by purchasing 1,300 homes because they are too close to high voltage cables (transmission lines) which, according to scientists, endangers public health.

With the Baltimore hearing our of the way, and the Irish enquiry buried under layers of duplicity, Nixon returned to the theme of the effects of microwaves on the built environment and more duplicity at the Pennsylvania Public Utilities Commission. “It stands to reason and would follow with the ‘crumbling masonry’ theory that is sitting with insurance companies right now that this BPL **** is shaking buildings apart!

“This ELF stuff passes through anything and everything in a very high energy state. Which means, of course, that even trees are going to be mutated in the long term – but that’s just it; all effects are mainly going to be long-term. We’re the canaries down the coal mine that no one is taking any notice of right now. The fact that wildlife, particularly insects, are disappearing at an astonishing rate and the occurrence being ignored is simply another facet of the evil behind this entire issue.” Saving the most immediate issue for last, he added, “Got another ‘final’ ruling on the Verizon formal complaint yesterday, first I’d heard of it. The PA PUC has probably ruled in camera and against me again no doubt. Having exhausted that avenue I will take the next rung up the ladder.”

He turned his thoughts to an idea for a company specifically for blocking EMFs because he felt the industry is driven by money and not political power. “We keep pushing at these bastards, we keep forcing them to look over their shoulder. We sow the seeds of doubt and instigate second-guessing and in-fighting in and amongst their rank and file. The main problem here is the media, who are actually part of the big picture scenario.”

In California, Deborah and her husband, Lou Tavares, stumbled on the effects of microwave radiation and spoke out, first in their community and then attempted to take their finding statewide. In one instance they were blocked from speaking at a city council meeting because they were not from the community. Her campaign was given airtime on the internet radio programs of Alex Jones and Dr. Stan Monteith’s *Radio Liberty*. “That people like this lady are beginning to see the

big picture is a boon to your and other's efforts," said Nixon. "All it took was for me to stand up (MD), look them in the eye, and make it personal for 'them' to react. 'They' are crapping themselves over the idea of this getting out in its entirety. As previously stated, 'they' have dug themselves a hole so deep that 'they' can't get out of it without major corporate damage. Nabisco? Tiny. ENRON? Small. Mortgage meltdown? Medium-sized. This 'thing', this monster, is massive in comparison to anything that has occurred in the past. Non-techs have every right to believe in the Conspiracy Theory. It is, however, nothing more than a few major corporations and a few well-placed contacts in governments around the globe. An engineered scenario? Of course. Lock and Load Guys – We're on 'em and we ain't letting go till it's dead."

By late July, and dissatisfied with blocking from Secretary Chiavetta and the Pennsylvania Public Utilities Commission, Nixon upped the ante by placing a formal complaint that the Secretary had violated his civil rights and then blocked redress. The curious behaviour of the PUC as well as West Penn Power is a graphic representation of the close relationship between the regulator and the regulated with the receipt of another dismissal of his complaints. Nixon reported that he had received another dismissal based on the judgement of the Administrative Law Judge. "I expected to be dismissed," explained Nixon. "Again it's another one of those, 'you've got 10 days to respond' from the date of the order, May 22, 2012, packaged by the PA PUC on June 13, 2012, mailed on the 18 July 2012. However, it was dismissed 'with prejudice.' The electrical utility company, West Penn Power (WPP), does not deny the charge made by me that it withheld knowledge and information at and from the original hearing (Court of Law) in April 2011. My charge was that WPP knew of the major health issues to the populace, knew of the extent and the identity of the emissions that would occur prior to BPL et al installation. Knowing this information WPP moved ahead and installed the equipment with intent, aware of the damage that would occur."

Even the judge stated in this latest Formal Complaint response that WPP did not deny Nixon's charges. Nixon had good reason to not be surprised by the verdict of the ADL, a year earlier he offered testimony and the judge was not in the room. In April, 2011, Nixon explained, "There were four (4) expert witnesses for WPP; all had been to the site in question with highly-sophisticated sound recording devices on separate occasions. None of them had picked up or recorded any standing wave audible noise. I was not allowed to present any of my evidence on-the-record and the PA PUC Administrative Law Judge left the hearing room for the entire time that I did present my evidence."

To a subsequent complaint to the U.S. Department of Justice, Nixon received the following response from the department's Correspondence Unit, Civil Rights Division, "This is a reply to your communication to the Attorney General. We apologize for the delay of this response. You have not provided sufficient information to enable us to determine whether a violation of federal civil rights statute is involved. If you will furnish us with a more specific statement as to the

circumstances involved in your complaint, the matter will receive our careful consideration."

"Got you a**h***s!" said Nixon, assuming his complaint had struck and secured purchase. "They've checked with PA, they've dug and they don't like what they see. They want to know how much I know and how deep my technical understanding goes. They also want to know the organization behind me. If we do this right we've got the bastards. Obviously, there is a lot of information that they have coming their way."

Confident that he had the necessary evidence for skullduggery by the Pennsylvania Public Utilities, Governor Tom Corbett, and again with the Maryland Public Service Commission, Nixon turned his focus to the U.S. Department of Justice based on health concerns. From his own experience and the experiences of many others in North America, Canada and Europe, with scientists, doctors and activists predicting a resultant series of epidemics - from cancer to autism to diabetes and a host of other debilitating diseases - Nixon assumed common sense would eventually win.

Central to the concept of Broadband over Power Lines is the amount of power pushed along the lines - not the frequency. Power can be adjusted to reach any of the devices to a wireless grid, ending at all the equipment - including self-powered laptops - needing the signal. Thus added power is needed to push the signal and create the leaking electricity which is actually needed to communicate with things like Smart Meters for the grid to work.

As Nixon explained it, "The signal strength being fed into the transmission lines at every electricity substation is turned up. And so it continues until the required signal strength is present to communicate with all of the remote 'smart' devices out there."

According to Nixon, "One of the results of the above conditions is that certain people can 'hear' the emissions due to a scientifically-proven phenomenon known as the Microwave Auditory Effect. There is also an audible component to these microwave emissions; approximately 20 percent of total emissions. Both of these effects are engineering/ physics fact. The above described people could well be considered as 'the canaries down the coal mine'." Among the earliest testimony by victims is the book, *Black on White: Voices and Witnesses about Electro-Hypersensitivity - The Swedish Experience* by Rigmor Granlund-Lind and John Lind, published in 2000, the same year Michael Tomana founded Amperion.

Nixon's first complaint met with a response asking for more information. While the people of Naperville, Illinois were preparing their action that the Open Meetings Act had been violated numerous times and other cases in the offing, Nixon focussed on his response. Meanwhile Mother Earth News published Dafna

Tachover's research that Electromagnetic Sensitivity had already been recognized by the National Institute for Occupation Safety and Health in 2005.

At the Dept. of Justice, Nixon was not having much luck. His response was characteristic: "On March 20, 2012 you were sent a letter and documentation regarding a federal civil rights infringement by the Pennsylvania Public Utilities Commission. On June 29, 2012, three (3) months later you saw fit to reply to said letter and documentation. The letter is enclosed. There is no date of my correspondence being received by you. There is no reference number to which it would be possible to refer to the original complaint letter. There is nothing of any reference or of use in any reply to your 67 word letter. It is a shoddy and completely unprofessional attempt to confound my original complaint."

Not since Zola's *J'Accuse* or Wole Soyinka's *The Man Died*, has a government been under siege by one writer. "I demand justice and a fair, unbiased hearing in a federal court for both myself and for millions of others in the USA that are being affected by these Smart Grid Initiative's equipment's emissions which have already claimed thousands of lives across the USA. Until such time that this Smart Grid Initiative equipment is removed you are complicit and guilty with intent of killing and maiming your own population," said Nixon.

He also copied his complaint to Secretary Chiavetta at the Pennsylvania Public Utilities Commission.

Nixon's instinct and military training told him he was entering a different arena. He knew he had truth on his side, he had the facts and the evidence. What he did not have was protection. Once the to the DoJ complaint was posted, Nixon had, once again, planned to go, as he said it, "off the radar". He had long planned to head west to Idaho - of course there was a woman involved - and go fishing. Arrangements were made to post the complaint and Victor Nixon disappeared.

Early in the year, Nixon had indicated that he was tiring of the energy, time, expense and effort it took to alert people to the coming dangers and to push back. It took all of his patience dealing with people around the globe who were drawing on his expertise to fight their own battles.

"Fuuuuuuuuuu!!!" he said in January, "Are my academic achievements and Q's ever in demand. I speak five languages including Farsi, hack into any computer anywhere on the planet, snipe someone between the eyes at 1,300 meters. But guess what? I don't want to any more."

“Here's the secret,” he confided, “Since Darfur I do not officially exist. The only thing spoiling it is the noise and emissions. But that'll get stopped ultimately. All I want is a couple of $Mil out of the $1.1Billion that I've sued ‘them’ for. Buy a farm, kill something and eat it. Go away, leave me alone. I've done my bit. Die happy with my combat boots off.”

Signs that the pressure was building surfaced just before the Baltimore hearing when Nixon admitted, “Right now I'm dealing with a woman that's seriously considering suicide - That's seriously with a capital "S". These days, with my boy gone, I leave the bathroom light off (there's no window) and hold my head in my hands. No thoughts, just that. I'm on top of it, I do not allow it to get to me.... famous last words be damned.”

The first reference to the fact that Nixon felt he was fighting for his life (and everyone else’s) was revealed in late January when he commented, “There is also a gut/chest pain experienced by some, including the author, associated with the BPL 17Hz subharmonic “Ghost Frequency”. It is by no means a minor reaction, doubling people over in pain; it is a very serious side effect of BPL/B-PLC interaction with the power spectrum.” He backed up his assertion with a reference to a study done by U.K. researchers into the 17 Hz frequency who found nearly a quarter of those exposed to an inaudible signal during a concert, reported anxiety, uneasiness, extreme sorrow, nervous feelings of revulsion or fear, chills down the spine and feelings of pressure on the chest.

A few days later he confessed, “You are probably aware that entire countries have blocked this technology’s implementation following pilot projects and recognizing BPL/B-PLC for what it really is; an unfinished and malignant technology. There are at least five (5) U.S. states that have vetoed its installation, more will follow. There are hundreds of thousands of people in the U.S.A. presently suffering, millions around the world. Presently, my left leg is entirely numb, I am going blind in my right eye, suffering stomach and chest pain 24/7; my entire physiology is deteriorating; all because of BPL emissions. I have one path; I either get these emissions stopped or I die, it’s that simple.”

Three weeks after “going off the radar”, an e-mail arrived asking for a telephone call. “Please contact me as soon as you can.”

The response was numbing. The voice said simply, “Victor is dead”.

He died alone in a cabin in Idaho 17 September 2012, an hour’s drive from the border with Canada. He did not know the outcome of his complaint to the Department of Justice. The death certificate cited a myocardial infarction - a heart attack - due to atherosclerotic coronary vascular disease or a blockage or hardening of the arteries of the heart. He was 59 years old.

Early on Nixon cited the following:

> Tender-handed stroke a nettle,
> And it stings you for your pains,
> Grasp it like a man of mettle,
> And it soft as silk remains.
>
> Aaron Hill
> English dramatist (1685 – 1750)

Therein lies the definition of a life well-lived.

To be able to define yourself without allowing someone else to define you - being "manufactured" to use Noam Chomsky's hypothesis in *Manufacturing Consent* - in a world dominated by celebrity, science and technology, is next to impossible.

It is an admirable lifetime achievement.

For his sake, he left us as he wanted, anonymously and quickly with fire and hope.

> No one felt like this before—says the young writer—but *I* felt like this; I have a pride akin to a soldier going into battle; without knowing whether there will be anybody there, to distribute medals or even to record it.
>
> F. Scott Fitzgerald
> Introduction to *The Great Gatsby*

Nixon was a writer. Nixon was a soldier.

There are no medals.

Here, at least, his contribution is recorded.

- ***John Weigel***

Note: Victor Nixon's experiences are recorded as a tribute to the Human Spirit facing monumental forces of power and greed. For the first time in history, the choice of fight or flight no longer exists. As Nixon learned, even the ability to create a dialogue through the media or the courts has been usurped.

With mainstream science dependent upon government and corporate funding, those scientists concerned about the effects of microwave technology on every living organism on the planet are being starved of research funds or pushed

aside. No claims are made on the correctness of Nixon's scientific insights. They are included for physicists and other scientists to replicate and verify.

Nixon is survived by his son, daughter, mother, two brothers and a sister and hundreds of contacts around the world.

Smart Grid World Summit set for London

Smart Grid Conference to be held in London, 27-28 November 2012 is billed as the 'Smart Grid World Summit'. The conference is organized by Consumer & Media Intelligence, Ltd. (http://www.smartgridworldconference.com/index.html)